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PREPARING EDUCATORS TO MEET EMERGING NEEDS

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Reports Prepared For
The Governors' Conference on
Education for the Future

SP002913

Designing Education for the Future:
An Eight-State Project

Denver, Colorado
March, 1969

Edited by

Edgar L. Morphet and David L. Jesser

DESIGNING EDUCATION FOR THE FUTURE:
An Eight-State Project

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DAVID L. JESSER, *Assistant Director*

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Emerging Designs for Education (1968)
Planning for Effective Utilization of Technology in Education (1968)
Preparing Educators to Meet Emerging Needs (1969)

FOREWORD

The publication of this final volume in the conference series constitutes part of the terminal phase of one of the most exciting ventures into the future of our society, *Designing Education for the Future:* An Eight-State Project.

This project has attempted to determine what society might be like in the future, what changes are needed in our schools and educational institutions to prepare for that future, and to examine the planning and change processes whereby these improvements might be brought about.

The project has made a major impact upon educators as well as interested lay citizens throughout the United States. It has resulted in an increasing awareness of the need for comprehensive planning so that action, rather than reaction, will be the rule rather than the exception.

This publication and the conference for which the papers were prepared help to direct attention to the ultimate truism of our democratic society: that all decisions with respect to the future of the educational system must eventually be made in the political arena. The Governors' Conference on Education for the Future held in Salt Lake City, Utah, December 11-13, 1968, was an attempt to introduce some of these major considerations into the political process.

It may well be, as a conference participant said in Salt Lake City, that instead of designing education for the future, we may well begin now to design the future through education.

It has been a great pleasure to be associated with this study, and I commend all who are associated with it for their willingness to accept the challenge of the future.

Byron W. Hansford
Chairman, Policy Board

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INTRODUCTION

As civilization advances, the problems of learning and of teaching become more complex with each new generation.

In primitive societies, learning has always been largely a matter of observing what other people do and how they react, listening to what they say and attempting to imitate and benefit from much of what is seen and heard. That process continues in modern society but is clearly inadequate under present conditions. There are vastly more things to be seen both vicariously and personally, almost an infinite variety of things to be heard, so many materials to be read that only a beginning can be made in a lifetime, many abstract symbols and concepts to be learned and utilized, and highly intricate devices and tools that must be mastered and understood if one is to function effectively as a member of a rapidly changing society.

What we now call "teaching" has also been relatively simple and informal in primitive societies. Most of it was done by the parents but such "teaching" was commonly supplemented by a few "wise men" of the group who "lectured" informally to the "students" and gradually assumed more of the responsibility for their education. With the invention of printing, the processes of education could have been revolutionized. Instead, the lectures and learning tended to become more formal, partly because many people including religious leaders, were afraid their students might read the "wrong" things. While the process of education has been considerably modified during more recent years, the tradition of lecturing or attempting to impart information orally to students is still strongly entrenched in many parts of the world.

We are now in the midst of a technological revolution that many claim is potentially as significant for education and learning as the invention of printing. Will we take advantage of this new opportunity to adjust education to current needs and modern possibilities, or will many again find excuses for continuing processes and practices that are indefensible in light of the evidence now available?

Some people are already concerned that the utilization of computers and other technological developments may tend to dehumanize education. This could happen, but it can be avoided or at least minimized by careful planning. To attempt to utilize any of the technologies without understanding the limitations as well as the potential could be disastrous. The most recent publication sponsored by this project *(Planning for Effective Utilization of Technology in Education)* emphasizes the importance of cooperative planning in this area, presents guidelines and points out some of the advantages and limitations. Some of the authors have noted that appropriate use of technology can help not only to improve education but to make it more humane. In considering this matter, we should not overlook the inhumanities all too often encountered even today in many schools and colleges.

This project has been concerned with attempts to determine what changes should be made in education to meet the needs of a rapidly changing society and with the process of planning and effecting improvements in all aspects of education. Several writers have pointed out that, while we may not be able to *predict* the future in terms of certain specifics, we should be able to *perceive* the future in terms of goals and aspirations, and to plan accordingly.

When attention is given to the aspects of education in which major changes seem to be essential if future or even present needs are to be met satisfactorily, several important conclusions begin to emerge. These include: (1) an adequate program of education for every individual is becoming increasingly important with each passing year to help to assure the progress and prosperity of the nation; (2) effective planning for improvements in education is essential in every state, in institutions of higher learning, and in local school systems; (3) lay citizens as well as educators must be engaged in the planning process because both are involved in and concerned about education; (4) all planning should be based on a careful study of pertinent information concerning trends and probable developments, rather than on wishful thinking or speculation; (5) because conditions may change or new evidence become available, the planning process should be continuous and plans should always be considered tentative and subject to revision; (6) significant changes in instruction and learning are likely to be made only when the need and importance are recognized and understood by those involved; and (7) the needed changes will come all too slowly unless major improvements are made both in the pre-service and in-service programs for teachers and other persons professionally involved in education.

The papers included in this report (several of which were presented and discussed at the *Governors' Conference on Education for the Future* held at Salt Lake City, Utah, December 11-13, 1968) were prepared in an effort to provide some guidelines for effecting major improvements in programs for the preparation of educators to meet emerging needs. As pointed out by Dr. Tumin in Chapter 1, there must also be some significant modifications in ways of thinking about and dealing with ability, motivation and evaluation of students. Thus, major improvements will be needed not only in programs and attitudes of institutions of higher learning but also in policies of states and local school systems, and in the roles of teachers and other educational personnel.

Edgar L. Morphet
Project Director

December 9, 1968

Honorable Calvin L. Rampton
Governor of Utah

It is a pleasure to send warm greetings to the Governors, educators, and other leading citizens of the Rocky Mountain States participating in the Governors' Conference on Education for the Future.

It is gratifying to me that you have chosen as a principal topic for this conference the preparation of educators to meet emerging needs. I think it would be difficult to find a subject with more significant implications for the future welfare of America. Education can fulfill its great responsibilities to our developing society only if it is carefully designed to prepare students in the schools today for the world of tomorrow. And in all planning for the future of education, the preparation of educators must be given primary emphasis, since our hopes for progress ultimately depend on the competence and dedication of those who serve education — the teachers in our schools and colleges, leaders in administrative positions, a growing number of specialists, and an important group of nonprofessional helpers who make the professionals more effective.

This conference also provides heartening evidence of the mutual concern of educators and political leaders with the progress of American education. I think we are all aware that the realization of our educational goals will depend increasingly on the cooperative efforts of these two groups of public servants in the years ahead.

Please accept my very best wishes for a pleasant and productive conference.

Harold Howe II
U. S. Commissioner of Education

(The above communication was addressed to Governor Calvin Rampton who served as host governor for *The Governors' Conference on Education for the Future,* held at Salt Lake City, December 11-13, 1968, as the final conference in the series sponsored by *Designing Education for the Future.*)

We think . . . of the interaction between a child, the teacher and the experiences called the curriculum as a process of the continuous creation and re-creation of new dimensions and domains of capacity.

If it is true, as we are here asserting, that learning can also be made into the process of the continuous creation of capacity, then it follows that it is crucial for the teacher, the school and the school system to be very careful about what they decide to teach the student or have him learn.

In principle, nothing should be taught in the schools that cannot be shown, or at least strongly presumed, to have a multiplier effect upon the child's capacity.

MELVIN M. TUMIN (Chapter 1)

CHAPTER 1

Education and Educators in a Changing Society

Part One

Ability, Motivation and Evaluation:

Urgent Dimensions in the Preparation of Educators

MELVIN M. TUMIN*

One cannot speak of the preparation of educators for prospective changes in society without specifying which changes one has in mind. For that would be analogous to saying that the function of the schools is to help each child to maximize his potentials. Since each child has potentials for all kinds of things—good and bad—every educator obviously has to choose those which he will seek to "maximize." So, too, since prospective changes in society include everything from misery to joy, and from increased affluence to increased international conflict, someone (or some group) has to make careful choices.

Many of the prospective changes in society are "value-neutral" in the sense that they do not contain any inherent values. One such instance is the predictable increase in technology and "hardware" that might be incorporated into the educational situation. Technology, as such, is neither "good" nor "bad" by any of the numerous and competing criteria of value, except for the sentimentalist approach that erroneously sees machines as necessarily dehumanizing the educational transaction.

In addition to such value-neutral changes, the immediate and long-range futures promise (or threaten) many changes that *are* value-laden in the sense that inherent in these changes are certain directions in life and society on whose moral quality our culture has already stamped its general approval or disapproval. Examples in point are the current demands by the communities of youth, black people and women for greater participation in the perquisites of first-class citizenship. The pressure in these demands is toward more freedom, more equality, and greater sharing in the rewards of citizenship. These values fall squarely within the framework of the "liberal democratic" ethos. One therefore favors

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***Professor of Sociology and Anthropology, Princeton University*. Formerly, member of faculty, Wayne University and Columbia University; Senior Fellow, Council of the Humanities, Princeton University; Fullbright Senior Research Scholar, Norway and Italy. Recent publications include *Quality and Equality in American Education*, *Social Stratification*, and *Research Annual on Intergroup Relations*.

them or is opposed to them. Favoring them and sponsoring them will increase their probability of occurrence, while opposing them will decrease that probability. Those concerned with the preparation of educators must obviously choose which way they will opt in these issues.

Even in value-neutral situations, however, a choice has to be made as to which goals and values the changes will be made to serve. How shall we use programmed instruction? For further individualization of education or for even more mass uniformity? The decision will depend primarily on what we otherwise value.

SOCIETAL AND EDUCATIONAL GOALS

One cannot escape, it is clear, from postulating one's own vision of a desirable society and a corollary desirable type of educational system. Only with some such specification of "ultimates" or "goals" or "criteria" can one justify his choices, whatever they may be. Thus, if I am primarily interested in the preparation of talented elites for the staffing of crucial social positions, I shall be significantly less interested in providing continuing education beyond the traditional 12th year for all students than I would be if my "goal" were to provide equal, quality education for all students.

Thus, in searching out guidelines for recommending how educators ought to be prepared for the society of the future, I must postulate my own notions as to what I consider ultimately desirable and important in education and society.

If, therefore, I am now to speak about how one ought to prepare teachers or other educators to meet the world of the future, I must specify what kind of future I want to have, insofar as the schools are concerned.

My goals of education can be simply stated. Adapted from the Pennsylvania State Quality Education Project, these goals read as follows:

Quality education should help every child to:

1. Acquire the greatest possible understanding of himself and an appreciation of his worthiness as a member of society.
2. Acquire understanding and appreciation of persons belonging to social, cultural, and ethnic groups different from his own.
3. Acquire to the fullest extent possible for him mastery of the basic skills in the use of words and numbers.
4. Acquire a positive attitude toward school and toward the learning process.
5. Acquire the habits and attitudes associated with responsible citizenship.
6. Acquire good health habits and an understanding of the conditions necessary for the maintenance of physical and emotional well-being.

7. Secure the opportunity and receive encouragement to be creative in one or more fields of endeavor.

8. Understand the opportunities open to him for preparing himself for a productive life and enable him to take full advantage of these opportunities.

9. Understand and appreciate as much as he can of human achievement in the natural sciences, the social sciences, the humanities, and the arts.

10. Prepare for a world of rapid change and unforeseeable demands in which continuing education throughout his adult life should be a normal expectation.

Stated this way, these goals are not yet operationalized. A great deal of work is needed before they can be specified in terms that are susceptible to measurement. But that work is underway in many quarters. It is not, therefore, on *that* task that I mean to focus here, but rather on certain key concepts and practices in education in the United States today that require serious reformulation and revision if the vision implicit in those goals of education is to have any chance of becoming a reality.

For there *is* a vision contained in those goals. It is a vision of a free society, peopled by men, women and children *who consider each other as fully equal human beings;* who do not permit differences in religion, economic status, national origin, ancestry or skin color to alter their regard for one another; who accept differences in talent as a fact of nature, but who do not demand that we stamp differential approval on different talents with equal social rewards in honor and in desired goods and services.

Even if such conditions of organized social life in the larger society do not seem within immediate reach, they are at least not beyond envisioning or striving for within the framework of the schools. More than that: *there is no justification in democratic theory for acting in any way other than on the notion that all children in the schools are equally entitled to an equally good education.* That is their entitlement on the basis of the equality of their claim to first-class citizenship in the society of the schools.

Some have argued, contrariwise, that better education of some sort ought to be provided to the "best" students. But students are "better" or "worse" either by virtue of nature or nurture or both. We cannot in good conscience, therefore, allocate more of the good things of school life to children who happen by accidents of birth to be better endowed with certain school-relevant capacities. And we surely may not, by any decent democratic code, allocate special school advantages to those who are more fortunate in regard to the social and economic advantages to which they fall heir. To reward the differences in facts of natural endowment would, in effect, be to substitute an aristocracy of genes and talent for the older aristocracy of family and title. To reward the differences in advantageous social inheritance would be to render the already fortunate more fortunate still. Clearly, neither of these principles can be openly advocated or practiced in a school system that professes a democratic orientation.

If, then, in principle and in practice we are committed to equal, quality education for all children, and if the content of that "quality" is as specified in the goals of education stated earlier, we now must ask: What prevents us presently from living up to our democratic educational mandate and what can we do in the future in the ways in which we conduct schools, and in the ways in which we train our teachers, to bring the ideals of equal, quality education closer to realization?

There are obviously numerous structural obstacles in our path today. These include the diversity of locally autonomous school governances; the great differences between districts in per capita resources and allocations for the education of children; and the lack of requisite human skills and materiel. These are only some difficulties one might mention. These are substantial difficulties and I do not mean to minimize them. But one can see his way out of these problems. They are in principle soluble.

Much more difficult in all ways than such structural problems are those which might be described as arising from a cast of mind about certain crucial dimensions of the educational process. I refer to certain very widespread ways of thinking about children, their abilities and their outcomes. These modes of thought create the kinds of obstacles that make any genuine change in American education most difficult indeed even if all the major structural impediments were removed.

I refer to three main ideas or modes of thought that have to do with (1) ability, (2) motivation, and (3) evaluation.

WAYS OF THINKING ABOUT ABILITY

Perhaps no single concept is at once so central and so problematic in American education as that of ability. Our system is geared to the "discovery" of ability; to the "testing and measuring" of different abilities; to the "identification" of talents; to the "evaluation" and "honoring" and "rewarding" and "punishing" of different levels of capacity as they are expressed in performances; and our social advantages throughout life are distributed presumably in terms of differential abilities, with a supporting notion of the differential entitlement of the more talented to more of the good things of life.

Our difficulties arise primarily from our conception of ability as unidimensional in quality, fixed in level, and unalterable by environmental interventions. But in all three regards we are seriously and dangerously wrong and cause untold injury to ourselves as educators, to our students, and to our society. For we know as surely as we know anything about the makeup of children that "ability" is of many kinds, including, of course, great diversities in cognitive ability or intelligence. We know, too, that the level of ability in any given field, and over numbers of fields, is a constantly shifting volatile matter, and that *numerous kinds of environmental interventions can and do make substantial difference in the level and quality of ability that is available for any given task.*

In place of the traditional and pervasive notions of fixed, uni-dimensional ability, we urge the importance of beginning to think of education as *"the continuous creation of capacity."* Thus, instead of conceiving of schooling in terms of "unfolding" and "discovery", by a teacher, of the natural abilities of a child and applying them to diverse tasks, we think, instead, of the interaction between a child, the teacher and the experiences called the curriculum as a *process of the continuous creation and recreation of new domains and dimensions of capacity.*

Thinking in these terms, we come to realize that everything learned can become not only an addition to knowledge but also, if properly chosen and integrated, an additional capacity to learn more in the future. Increments of knowledge, under the right circumstances, are increments of ability. We stress the qualifying phrase "under the right circumstances" because *for the same reasons that capacity can be increased by learning, it can also be kept at dead level or even decreased.* Useless things can be taught which simply clutter up the mind and leave little room, energy or interest for learning any more. Or, false things can be taught which shut the mind from learning certain new kinds of ideas. Or, attitudes toward knowledge and experience can be taught which restrict, if not reduce, the capacity of the individual for further experience and learning.

If it is true that learning can also be made into the process of the continuous creation of capacity, then it is crucial for the teacher, the school and the school system to be very careful about what they decide to teach the student or have him learn. The materials must be selected not only for their relevance to given problems of immediate interest, but for their potential as horizon-broadeners and capacity-creators as well. *In principle, nothing should be taught in the schools that cannot be shown, or at least strongly presumed, to have a multiplier effect upon the child's capacity.* If the child is asked to learn "X", but "knowing X" does not make him more able to learn more things than he could have learned before knowing "X", then he should not have been asked to learn "X". Here, "learning" must be construed as broadly as the term merits. For, it includes "understanding" and "appreciating" as well as the more restricted meanings of the term "acquiring."

It can be seen that if these principles are followed in the schools and in the training of teachers themselves, we shall be in for some drastic revision in the curriculum. It will no longer be defensible to require children to read books on the grounds that they are "classics" of one sort or another. It will be necessary, instead, to demonstrate that the materials have been shown, or may properly be presumed, to *augment* the child's understandings and appreciations so that he becomes more capable of grasping complexities and dimensions of the natural and cultural world than he could before being exposed to the books or experiences. Nothing will be able to be justified as being valuable in itself. And *since, in fact, nothing is valuable in itself, our principles of curriculum building will finally come to rest on sound philosophical principles,* including the realization that man is the unique creature who invests his world with whatever values it comes to have for him. The corollary principle will also then be realized, to the effect that *man is the active agent of his own destiny.*

Several other important consequences flow from adopting the perspective that education is the process of the continuous creation of capacity. Under the guidance of this principle, it should no longer be possible to stigmatize and brand children with labels of various kinds that refer to the presumed fixed capacities to learn slowly or quickly. Instead, every child will have to be taken as a set of open possibilities, whose profiles of possible development are volatile and diverse, and whose capacities at any given moment are a matter of discovery and exploration through exposure to a variety of nourishing and stimulating materials and experiences. Every child thereby acquires dimensions of uniqueness that he cannot enjoy under more traditional doctrines. For, he now becomes unique not only as distinguished from other children, but as distinguished from himself the day and the hour before the present educational encounter.

Lest it be thought that this vision of the educational process will involve the teacher in an endless round of uncertainty as to how and where to approach the students, it must be understood that it makes perfectly good sense to assume that the child is ready for new materials and experiences at about the level he reached in the previous day or week of exposure. This is a satisfactory working hypothesis that any teacher may use. *But it is only a hypothesis.* For the teachers must always remain open to the possibility that the child is ready not for "more of the same" but rather for an individual "system break"—that is, to go off in somewhat different directions; or, he may be ready to move far more quickly or perhaps far more slowly than he did the day before. The changing profile of capacity is multifaceted and we had better be prepared for different tempos and directions of inclination in our children from one educational moment to the next.

We are admonished, too, by the notion of the continuous creation of capacity, that some selection and choice is always required, not only from among the many educational experiences in which we might involve the child, but from the many things he might become or might learn to appreciate and understand and at which he might become skillful. The "openness" of the child means an openness to all kinds of things. We may not—except at considerable peril of severe loss—assume that the child's openness is always confined to valuable and beneficial development. We are always required to make decisions regarding what we consider valuable for the child and in turn for our society. When we speak of maximizing a child's potential, we can only mean doing that very selectively if we are to make good sense of it. For, the child has the potential to become many things, good and bad, by our own values. Our choices—as well as his choices—are therefore crucial.

There is an even harder kind of choice we must always make and that is from among the many "good things" the child could learn and become. It is all too evident that *early in the usual school career the schools shut down on the artistic and creative dimensions of intelligence as they begin relentlessly to pursue the development of skills in the so-called hard subjects.* A choice has obviously been made, one that is in consonance with some "received doctrines" of practicality, by which math and science and English are conceived as the core intellectual disciplines. The results in terms of parochial and restricted functioning of our children are once again obvious, however much we may celebrate these results because of our tendentious criteria of value.

The fact remains that we can see the creative and imaginative dimensions of mind and of heart of many children being destroyed in the educational process as it is presently constructed, whatever the gains that may be made as a result.

We are forced into this unfortunate choice situation by a misconception of the nature of curriculum, with our insistence on thinking in terms of selected subject matters. This is a carry-over from the Middle Ages—a tradition which goes unchallenged except in certain recondite academic circles. But a moment of reflection will reveal that we need not think in these terms at all, and that the education of our children could be decisively enhanced if we were to think instead in terms of fundamental curricular themes and motifs, such as "man's quest for certainty". To the clarification of such themes a host of diverse materials from a number of different fields of scholarship and learning could be brought relevantly to bear.

With the curriculum so conceived, we would not be forced into bad choices involving the destruction or bottling-up of certain capacities for intellectual and emotional growth of our children. Instead, for any such theme, materials from the "hard" and "soft" subjects could be brought into focus, and our children could learn deeply through art and music as well as through science and English and math. Some notion of the unity and diversity of human experience, and the variety of levels and qualities of human joys and sorrows might come to be more effectively appreciated than is now the case. *The rejection of the world of arts and of music by so many of our youth is no accident in a society whose schools make these subjects "fringes" on the academic cloth,* to be woven in only when and if there is some unexpected time left over from the more important subjects. If we are to educate the whole child in any meaningful sense of that term, we had better take into account the urgent practicality of helping him learn how to enjoy life as well as how to make a living.

WAYS OF THINKING ABOUT MOTIVATION

For some decades, if not centuries, we have been guided by a theory of motivation which is expressed in the aphorism "Where there's a will, there's a way." This formulation embodies not only a motivational theory but a notion of moral responsibility for success and failure and a view of the possibilities in human life. That is admittedly a great deal to pack into a seven word aphorism, and all the more the pity since all three theories it contains are demonstrably false.

The implied notion that if one does not succeed at his tasks, he has only himself to blame, ignores the impersonal, institutional spread of differential disabilities and deprivations among differing segments of the population. It thereby denies the demonstrable presence of social and economic stratification, and the relevance of stratification to the inequalities in basic life chances. The evidence testifying to the presence of such inequalities—and to their relevance to school performance—is perhaps as copious as in any other single major area in the sociology of education.

The implied notion that all problems are soluble if only one *really* wishes to solve them is again demonstrably false. This idea denies the objective and demonstrable reality of obstacles which are often far greater than can be overcome by the resources available to a person, whether these are material or spiritual. If we have long since stopped insisting that rocks are only as hard as we believe them to be, why do we keep on insisting—as we do with this doctrine—that life is only as hard as we believe it to be?

Finally, the implied notion that the lack of desire to achieve is somehow due to a willful withdrawal or hiding of this desire, or a laxity or laziness of spirit, is an idea that runs counter to everything we have learned in the last forty years about motivation, learning, the need for achievement, unconscious mechanisms of self sabotage, and the relevance of social facilitations of aspiration.

One knows a disease by its remedy. The sickness of "lack of will" or laziness is to be treated (popular thinking avers) by the administration of a "good kick in the pants." While one need not infer that the locus of the remedy to be applied also identifies the locus of the illness itself, it is nevertheless apparent that we are dealing here with a most simple-minded and unworkable doctrine.

Motivation is something far more complex and difficult both to construct and to achieve. We may suggest a model which will reveal how complex indeed is the phenomenon. We would argue that motivation varies under the following conditions:

- The goal to be sought after or striven for is perceived as desirable and worth striving for, *by the person whom we are seeking to motivate.*
- *He* must have some comprehension of what are the probable means that will have to be pursued to achieve the goal.
- *He* must have some sense of the costs *he* will incur along the way, and the gratifications *he* will receive both along the way and at the end.
- *He* must judge, in anticipation, the balance of costs and gratifications to be one which *he* tentatively, at least, finds attractive enough to begin striving for.
- *He* must be made able to anticipate the favorable balance of cost and gratification by having human models—contemporary, historical, or both—with whom *he* can identify, and who exemplify or testify to the worthwhileness of striving for the goals in question by the prescribed means.
- As *he* starts tentatively to move toward the goals, *he* must be reinforced at every point—*but most particularly at those points where he is most likely to falter*—by experiences of success. That is to say, his experiences of striving must be so structured that it is possible for him to experience success, or at least to avoid the kind of "failure" that typically disheartens and discourages. (There are obvious implications here regarding the need for individuation of instruction and curriculum if such continuing experiences of success are to be made available to children of very diverse capacities. Obviously this aim cannot be achieved under conditions of standardized mass instruction.)
- The experiences of success *he* has along the way must be accompanied by some sense of pleasure, not only relating to the success itself, but to the balance of gratification in the process, as against the pains he has endured and the costs he has paid. Some positive and favorable balance of "pleasure"—hopefully containing a healthy dose of genuine fun—along within the pleasures from the sense of growth and mastery, must be made available and experienced *by him.*
- As he nears the "end" in view, it must become apparent to *him* that his estimates of the probable balance of cost and gratification throughout the process were not mistaken and that now, in addition, *he* can prospectively see new horizons of desirable future achievements that are open to him as a result of having ventured and won.

In short, the achievement must have a "point," a "payoff" that *he himself* can see and value.

- There must then ensue for him a developing sense of himself as a worthwhile and competent person, one who can strive and succeed and be rewarded in the process, and be valued by those who have urged him to strive.

At this point, motivation has *tentatively* taken hold and may—with substantial and frequent reinforcement—become more deeply rooted. But it ought to be understood that the motivation so engendered is likely to be *task-specific,* at least at the outset, in the sense that the willingness to risk may attach itself only to very limited targets and may not be generalized to a whole range of tasks—even if they are in the same domain—such as the cognitive, or the athletic or the manual. *Generalized* high motivation comes only as the product of prolonged and diverse experiences of success and gratification over a range of striving-achievement sequences.

It is patently clear that this model of motivation is something far more complex than that which is embodied in the phrase "where there's a will, there's a way." What this model implies instead is that *"where there's a way, there's a will."* That is, will or motivation will develop only when the complex and difficult sequences of striving-achievement have been structured and experienced in the specified way, and only then can we expect "will" or "motivation" to ensue. In short, the will is to be created by the ways to be provided.

If one argues that this is too difficult a formulation and that it would be better to go with simpler notions, one must then ask whether, in fact, simpler notions will work at all. If they will not—as they clearly will not in most instances—then they are not simpler at all. They are *infinitely* more difficult; in fact, they are impossible.

The painful lesson for many traditional educators—one that is probably too painful to learn and to absorb—is that there is no simpler way to motivation than what has just been described.

The motivational model specified above has the additional, potentially great value that it is usable, with modest additions, as a model for integration into moral or value-norms. That is to say, *one learns to value and to abide by norms of conduct in almost precisely the same way as one comes to be motivated to learn cognitive material.* The one substantial difference is that in the integration into a moral code, certain negative restraints or sanctions are probably required to reduce the likelihood of resorting to deviant, inappropriate behavior. This special requirement is due to the continuing presence, in the development of any child, of certain early and persuasive, gratifying experiences with deviant behavior: the experiences of the immediate, direct, unshared and cost-free gratifications. Integrating a child into a desired moral system must, therefore, be able to interfere and countervail against the seductions of such deviant gratifications.

We stress both the correspondence of, and the significant difference between, the dynamics of motivation and of moral integration in order to reveal how the processes of learning and achieving in school have become laden with moral implications that are detrimental to the learning process. I think particularly of two things: (1) the way in which being attentive, and doing one's work and making the expected products is defined in terms of "good" and "bad"; and (2) the way in which learning and school are defined as "work" and hence as "virtuous," and are treated as requirements whose quota must be fulfilled before the child is considered to have "earned" the right to enjoy the slightly sinful "play" or "free" time.

It is because of this view—this moral investment of the learning process—that we find so many educators feeling the need to use "punishment" and negative sanctions of various kinds in order to restrain the child's "natural" propensities to idleness and play. That is, the learning process is treated as a sternly virtuous and morally desirable process, whose attractiveness to the child, however, is considered to be "naturally" low in proportion to the competing seductions of idleness and play. As a result, it is believed that restraining sanctions are required to keep the child focussed on his "work." As a corollary it becomes very difficult for many educators to rise to the conception of making school "fun", and for many parents and other lay citizens to accept this concept. If it is fun, they reason, it can't be very important or worthwhile. Virtue necessarily is painful, according to the stern and dour Calvinist morality under which most of us have been reared.

I submit we shall get nowhere in our effort to reconstruct education in America, and to move toward making it more equal and of higher quality, until we divest differentials in achievement of any moral overtones and until we introduce in an effective way the notion that school and education should be and can be fun, or at least interesting and stimulating.

I do not expect that we shall get very far along this new road in the proximate future. But it seems to me imperative that this perspective be made part of the training of every teacher candidate so that he shall feel impelled—as a basic requirement of the satisfactory discharge of his role as teacher—to find ways in which to make what he teaches attractive and enticing to students. Since so much of modern schooling is anything but attractive and enticing, there is room for vast change and improvement here, but one need not view this as a case of all or none. If, in the next ten years, we find ways in which to add only thirty minutes of genuinely pleasurable and gratifying experiences to the school day of the average child in the United States, we shall have made an enormous contribution to him, to ourselves, and to education in general.

WAYS OF THINKING ABOUT EVALUATION

We turn finally to consider the role of evaluation in education, as it effects the process of learning and of teaching. Evaluation means many things to many people, but the core meaning has to do with some notion of finding out how well an enterprise is going, or how successful an activity has been. It is perfectly rational of course to be concerned with evaluating the process of education—to try to determine whether our schools are doing well or poorly. For we spend a great deal of money and we invest large amounts of psychic and social capital in our schools, and their outcomes are presumably crucial for our national interests, today and tomorrow.

These are all very good reasons, then, why we should be concerned with the evaluative process and about conducting evaluation in such a way as to maximize its value. With that in mind it becomes both evident and imperative that we realize that if evaluation is to be sound at all *it must include not only a determination of the end product of a process but also an understanding and appreciation of what elements and facets of the process have contributed to what aspects of the outcome*. That is, when we evaluate an education venture we want to know not only what has happened to our children but how and why "it" has happened to them, regardless of what the "it" may have been. We want to be sure or, at least, as sure as we can be, that we know what is responsible for whatever success and failure we experience in education, so that we can correct and revise where needed.

Let it now be stated forthrightly that no more than 5 percent of the schools in America—if even that many—have any sound, demonstrable knowledge about the effects or the impact of the various aspects of their educational enterprises and efforts on the students. They know something of what the students have learned, at least insofar as this may be revealed by the final examinations. But they do not know whether the students have learned this much or this little *because* of what the schools have done or *in spite* of what they have done. They do not know how much the books matter as against the teachers, the tests, or the homework. They do not know whether more could have been accomplished in half the time, or four times as much in twice the time. They have no way of knowing whether they have spent too little, too much or just the right amount for what they have produced.

Of course this does not prevent teachers, principals and superintendents from boasting about "their" success with their "better" students. As a corollary, they are almost never hesitant about blaming the "failure" of their "slower" students on the students themselves. There is hardly a school in the country whose principal does not, at some proper ritual moment, declare that "on the balance, taking all things into account, this has been a pretty good year."

The serious exceptions to this generalization have occurred only in the last year or two, and then not from the comments made by principals, but rather, those made by politically motivated and despairing parents of children in ghetto schools who have found it useful and apposite to declare forthrightly that the schools have failed to educate their children. Since the schools cannot prove the contrary, nor can they prove that they have educated the ghetto children as much as they could be educated under the circumstances, we have a continuing political competition between the diametrically opposed ideas about the success and failure of these schools.

Not alone in the interests of political harmony—nor even mainly so—but primarily because education is too important and costly a venture not to be brought under rational scrutiny, it becomes crucial that we begin to develop sounder notions and procedures of evaluation. We must someday shortly learn how to identify what it is we do in the schools that has what effect on our children. We must also be able to sort out the contributions *to the educational outcomes* of their homes, their neighborhoods, their personalities, their teachers, and of books, of fellow students and school climates, and of the other major variables that together describe the effective educational enterprise.

There are numerous efforts currently being made to bring some sense and order into the evaluative process and we should not attempt to prejudge them. But one can say that—to the extent that these efforts rely mainly on the student outcomes and to the extent that they judge *students* as having failed or succeeded in their education—they will contribute nothing to the necessary revamping of evaluative procedures. The fact is undeniable that there are many forces that go into determining how "well" or "poorly" given students learn to perform certain school tasks (assuming these are the educational objectives) and the student himself is only one of these many forces. To attribute the totality of—or the main burden of—success or failure at learning to the student himself is to ignore these numerous other factors. To ignore these when they are evidently relevant and material, is to defeat evaluation from the outset.

Indeed, one may say that from the point of view of power to affect the final outcome, *the student is the least powerful force in the total matrix of forces that shape his school performance.* He has little or nothing to say about what he will be required to learn; nor about how he will be required to demonstrate that he has learned it. Nor does he have much power in determining what facilitations or obstacles will be provided in his home and in his peer groups; and he cannot control the climate of support or discouragement of learning that permeates his school. To blame him for his "failures" or to credit him for his "successes" is therefore markedly and decisively irrational.

Yet this is precisely what we do today in most American schools, and we embody this attitude, and ritualize it and sanctify it in our grading procedures. The outcome of a month's complex educational effort and interaction among various forces is measured by what the student "produces" on (for example) a forty-two minute examination, and the student is then graded as having failed or succeeded, plainly or with distinction. It is he then who is required by the logic of this process to revise *his* "ways," *his* "study habits" *his* "day-dreaming," or whatever. Almost never is the teacher or the curriculum or the principal or the peer group or the family called to account for the educational performance of the student.

We then magnify this process by administering "national achievement tests" to a supposed national sample of schools, and we establish "norms" of desirable achievement, under whose terms and by whose logic fifty percent of the schools must inescapably fall below the median and hence be deemed failures.

Hardly anyone, anywhere, anytime today asks seriously how much any given child might have been expected to learn under the circumstances of his life. And hardly anyone, anywhere, anytime asks how much a given school might have been expected to have all its children achieve, given its input. Since no one can properly say how much output any school *should* achieve—except against some measure of input—our national norms and medians are useless and destructive. They are taken mistakenly for standards, which they are not. And they are used mistakenly and harmfully as sources either of boastful pride or defensive shame.

CONSEQUENCES OF EVALUATION

The consequences of our grading system and our system of rating of schools are manifold and insidious. Only some of them can be singled out for brief consideration here.

The first has to do with the consequences for motivation and developmental growth, as discussed earlier. *Grading means labeling*. It means sorting out sheep from goats. It means setting rigid minds and stereotypical notions to work. It means putting fixed ceilings on children. It means treating them as closed bundles of fixed capacities. All these are the antitheses of what is required for motivation, on the one hand, and for the chance continuously to grow in one's ability, on the other. We have already indicated what these imply. It need only be added that there is great and deep danger here to a democratic society and school system. For if we continue to apply a common standard of expectation and invidious grading to children of diverse abilities, and if we identify those who "learn less" as failures, we guarantee their educational degradation, and in turn their rejection of education and of the society through whose schools they have been made objects of publicly ritualized degradation and dishonor.

More than that, we lose such potential as they might have and we thus contribute to the predictable reduction in the possibilities of national growth that might otherwise be enhanced by treating our children as open possibilities—all of whose achievements are to be equally valued regardless of the level of productivity. Let those who believe to the contrary offer one sound justification for punishing and degrading a child for doing only as much as he can do, just because it happens to be less than some other child is capable of doing. Not even the most urgent appeal to "national urgencies" could justify such a procedure. But this is precisely what we do innumerable times a year, in our thousands upon thousands of classrooms, to our millions upon millions of "less talented" children.

There are also drastic implications here for the preparation of teachers. For if they are socialized into the evaluation and grading process as it currently exists they will, thereby, contribute not only to the miseducation and distortion of their students, but they will guarantee the continuity of an educational system that forces them in a few short years to abandon—even if only in despair—every one of the basic principles of educational philosophy and child development that they may have learned in their teacher-training institutions. They become, then, martinets performing educational type chores, but not engaged in education in any real sense. They force themselves into periodic crises at "marking period" times, by having to make innumerable meaningless decisions about how to add up unreliable and unvalidated tests and exercises into some unjustifiable summary score, to which they then attach some badge of honor or dishonor in the form of A, B, C, etc. They also fall prey to the unbelieveable but wide-spread practice of having the so-called "better" teachers assigned to the so-called "brighter" or "faster" students, so that most of the teachers themselves inherit the degradation visited upon their students.

Moreover, teachers make it nearly impossible for themselves to learn and grow so long as they participate in the current systems of evaluation. For, they get no feedback whatsoever that might be of any help in their search for improvement and development. Instead, it is the children who are blamed for failure or credited with success, and the teacher has no way of knowing whether he or she is in the least bit responsible for the children's success or failures or whether they occurred in spite of everything she has done in the classroom. The teacher cannot learn about herself, her teaching, her style and her curriculum unless she submits these to careful scrutiny—unless, in short, in the evaluation process, she asks how much and in what way she and the things she controls contributed to the final outcome.

Evaluation, then, is in desperate need of reconceptualization and reconstruction. We *do* want to know how well children are learning things we consider desirable for them to learn; and we *do* want to know what features of the educational matrix are contributing to these learning outcomes and in what ways. But we cannot learn these things unless we submit them to scrutiny and inquiry and unless we are prepared for the great possibility that it is we—the agents of the schools, our curricular offerings, and our styles and approaches, in interaction with the child—who determine the outcomes. Teaching will continue to be deadly and joyless and despairful for many so long as we continue to evaluate learning the way we do.

Finally, if we are to give the kind of meaning to "evaluation" that we profess we should, we must make our evaluation efforts serve not only to inform us how well or poorly we are doing what we are doing and why, but also whether what we are striving to accomplish is worthwhile and whether our intentions are broad enough or too restricted. I refer to the fact that evaluation is impossible without a prior statement in clear terms of the goals of our efforts. Our goals must be stated in such terms that their achievement is capable of being measured—not simply guessed at.

Where, then, one may ask, is the evaluation of that range of goals that most American schools profess to desire? The goals of citizenship; of the capacity to live comfortably with differences; of the development of sensitivity and sensibility to the best products of our culture; of the acquisition of a sound and healthy self-image; of the development of a creative imagination; and of learning how to think critically? Where is the evaluation of these goals of education? What grading system, what courses, what curriculum pays any explicit attention to these? How long shall we as a society claim they are among our educational intentions but also continue to spend little time, less money and even less evaluation upon their achievement?

Only if we keep asking what it is we are evaluating will we keep reminding ourselves that our actual evaluation and educational efforts, in the vast majority of cases today, are confined to certain narrow and restricted spheres of some cognitive skills. Perhaps, when we have come to realize this disgraceful disparity between what we profess and what we do, we may then come to be more willing than most of us now seem to be, to look at ourselves critically and with an eye toward real change.

Hopefully, our teachers of tomorrow will be prepared to become the agents of this change, by helping them in every way possible in our training institutions to ask—and to keep asking—the tough and the embarrassing questions about goals and outcomes. They will surely do this, more and more, as they come to think reflectively about the new meanings of ability, motivation and evaluation.

SOME IMPLICATIONS FOR THE PREPARATION OF EDUCATORS

If these basic changes in ways of thinking about ability, motivation and evaluation are to be made, some drastic revision will have to occur in the preparation of educators including teachers, administrators, and school boards and related parent groups, and in the ways they define the schools and their roles in the educational enterprise.

Above all, teachers must be taught that in any learning situation in which they are the adult and powerful agents in the transaction, they must continuously ask themselves in what ways they are making it possible or impossible or difficult or easy for the child to become motivated to take on tasks and to achieve whatever is reasonable to expect him to achieve at that moment.

Training in self-consciousness and self-awareness; in the capacity to absorb criticism without a fear of loss of esteem or worthiness; in a sensitivity to how they are being perceived by their students and in caring how they are perceived—these are some of the new facets of teacher preparation that are required.

Moreover, the distinction between subject matter and methods, now formalized in most teacher training institutions, must be abolished. No teacher can be said to know her subject matter until she also knows how to teach it to others. This is as true for mathematical formulae as it is for social science propositions. Persons other than teachers may be said to understand and know things without being able to communicate them to others. But this must not be said of teachers. It is, therefore, decisively wrong and injurious to assume that teachers who pass courses in so-called "subject matters" are then prepared to go on to learn how to teach these subject matters to young students. *At every point in the education of teachers, effective methods of teaching the subject matter must become a crucial part of learning the subject matter.* This means that the traditional separation of content courses from methods courses is without any further value. Such a change will bring no loss, since this distinction has only had negative value in the past in any event.

A final implication for the training of teachers has to do with what competences each ought to be required to demonstrate continuously. In addition to so-called subjects and methods of teaching (conceived as suggested above) no teacher, at any level, can be said to be competent unless he or she is very well trained in child growth and development, including psychological and sociological features and factors that affect that growth and development. Teachers must understand how children grow and develop; how uneven their interests and motives may be from day to day; how varyingly responsive they may be to different kinds of educational experiences; how needy all of them are of a sense of their own powers and value; how dependent they are on the assurances of concern and affection for them by the teachers and other adult agents in their learning environment. Only when these dimensions of child development are fully appreciated and capable of being incorporated into practices in the school by the teacher can he be said to be qualified to teach. Among other things implied here is the need for actual classroom experience from the very first moment of teacher training—with continuous feed-back to ongoing seminars with fellow teacher-trainees, under skillful guidance, during which problems of growth and development and motivation and how to teach more effectively are subject to constant discussion and evaluation.

There are here also some important implications for educators other than teachers—especially principals, supervisors and school boards. The most obvious is that the teachers must have ample physical and psychological space and time in which to conduct their educational transactions. Crowded classrooms, harried schedules, twenty-five hours of contact classes a week, little or no time for educational refreshment and refurbishment—these are destructive of any efforts at implementing quality and equality in education. Principals must not specially honor one set of teachers over another for the "distinguished work" of a minority of their brightest students. *The teacher who moves "slow learners" as much as they can be moved must be valued and honored as highly and openly and richly as the teacher who is in charge of advanced placement groups.* The school officials, from principal to school board, must in short create and sustain an environment that makes good teaching possible. Otherwise, there can be no conceivable reasonable basis for expecting good teaching. Skimpiness in budgets, stinginess with materials and extra-curricular experiences, pressure toward "honor roll" types of classes—these will no longer do.

Examples of the kinds of change that seem indispensable include the reduction in the number of contact hours per week for each teacher; the elimination of non-teaching housekeeping and supervisory chores; and the provision of at least an afternoon if not a day a week of release from all formal duties for the purpose of reading, thinking and discussing school problems. These changes require mostly good will, money and a concern for the quality of education. Without them, no teacher can reasonably be expected to do more than a routine job of drilling her classes in a set of meaningless and dull subject matters.

That so many teachers do so much more is testimony only to the extraordinary and surprising dedication of teachers to their calling and their mission. We have been lucky in past years in the amount of such dedication that has been forthcoming in spite of so many discouraging actions and inactions by school officials and communities. We had better not count on this luck much longer.

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Part Two

Some Implications For Education and the Preparation of Educators

RICHARD C. LONSDALE*

In education, the wave of the present is the future. Never has so much attention been given to educational change and to educational planning for the future as during the present decade. In its concern for the future, education is simply one among many social institutions concerned with the extrapolation of present trends, the construction of hypothetical alternative futures, the preparation for emerging conditions, and, insofar as practicable, with the deliberate shaping of what is to come in the years and decades ahead. This concern for the future in education, as well as in society, seems to focus attention on these time ranges: the near-range—that is, the next few years; the middle-range, extending to about 1980-85; and the far-range, extending to the year 2000 and beyond.

Near-range concerns for the future are typical of the modern era, but these concerns have been sharpened and invested with more than usual tension by the educational revolution in which we now seem to be engaged—a revolution that is part of a broader social revolution taking place not only in this country but in many other nations of the world. It is quite correct to say we are "engaged" in this revolution, since educators are already widely involved as disputants—but apparently, as yet, only here and there as combatants.

Berkeley, Columbia, and San Francisco State, and the New York City Public Schools constitute only the more sensational scenes of violence and confrontation in this educational revolution that seems to spread to a few more colleges and universities and a few more big city school systems every few days. Out of this revolutionary turmoil of the sixties have come, and will continue to come, many changes in the governance of education, in educational decision-making processes, in the instructional program of the schools and colleges, and in the roles of those associated with educational institutions. Faced with revolutionary situations and demands, we cannot help but be concerned with the near-range future.

FUTURISM AND THE FUTURISTS

Despite the turbulence of our times which might warrant giving all of our attention to the near-range concerns, during the past six years or so there has been a notable upsurge of interest in the middle-range

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Professor of Educational Administration, New York University. Formerly, Professor of Educational Administration and Director, Bureau of School Service, Syracuse University; Executive Secretary, Central New York School Study Council; and Coordinator, Central New York School Board Institute. Author or editor of a number of professional articles, reports, and monographs, and has shared in the writing of three books.

and far-range futures. In the broader society and the disciplines outside education this concern has been expressed or developed in the United States by such groups as Resources for the Future (subsidized by the Ford Foundation), the RAND Corporation, the Commission on the Year 2000 of the American Academy of Arts and Sciences, the Hudson Institute, and the American Institute of Planners which used the occasion of its fiftieth anniversary to make a series of projections for the next fifty years. In the field of education, two educational policy research centers have been established, at Syracuse University and at the Stanford Research Institute, to study alternative futures and their implications for education. Illustrating a more incidental activity, the National Conference of Professors of Educational Administration has established a "1985 Committee" to study the implications of future projections for education, educational administration, and professors of educational administration. But by far the most notable and far-reaching effort to date has been the eight-state project, *Designing Education for the Future,* which has sponsored a series of conferences, publications and other related activities. In scope, depth and impact, this project is likely to be, for some time, the most influential effort in the area of educational planning for the future.

These and other future-oriented activities in the broader society and in education have already yielded a considerable literature in the form of books, monographs, pamphlets, and journal articles. Of particular note in the general field are the two volumes of articles reprinted from the British journal, *New Scientist*[1]*; the three volumes of papers prepared for the fiftieth anniversary of the American Institute of Planners[2]; the Summer, 1967, issue of *Daedalus* reporting the progress of the Commission on the Year 2000 of the American Academy of Arts and Sciences[3]; and the related work of the Hudson Institute, *The Year 2000,* by Kahn and Wiener[4]. In the field of education, the most impressive literature is that included in the output of the Designing Education for the Future project, which has already gone to six volumes, with more to come[5]. Three shorter treatments are also noteworthy. They are the long-range educational planning effort focused upon a brand new suburb of Phoenix, and reported in *Planning for Education in Litchfield Park in 2000 A.D.*[6]; William Van Til's projections to 2000 for teacher education[7]; and the set of papers growing out of a conference sponsored by the Center for the Advanced Study of Educational Administration on *Knowledge Production and Utilization in Educational Administration*[8].

In his introduction to the book by Kahn and Wiener, Daniel Bell suggested some reasons for the new wave of interest in the future[9]. Compared with an earlier flurry of futurist writings in the twenties which he described as having a "puckish air," the current outpouring reflects the desire of society for economic growth, for an upgrading of the people's standard and conditions of living, and for controlling social change for specified ends. The present analyses represent a more sophisticated methodology for inventing realistic alternative futures and then calculating their consequences for policy choices.

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*Numbers refer to footnote references at end of Part Two.

There has now emerged a new kind of academic specialist, the "futurist." At his best, the futurist is a true interdisciplinarian. Perhaps he is even what Buckminster Fuller calls for as the "comprehensivist"—a member of an intellectual elite who assembles the results provided by specialists from a number of disciplines working on complex problems and issues related to the future. It hardly seems likely that futurism is a passing vogue. Instead it seems likely that each of the "synthesizing" disciplines, to adapt Znaniecki's term,—education, medicine, social work, planning, and administration, to name a few—will develop its own set of futurists to pull together the contributions of the traditional "analytical" disciplines. Despite the prominence given education nationally in the sixties, it is disappointing to see how little attention is given to education in the general futuristic literature. It may herefore be necessary for educational futurists to synthesize for education the products of the futurists from other fields.

SOME PROSPECTIVE CHANGES THAT HAVE IMPORTANT IMPLICATIONS FOR EDUCATORS

Just as nearly all aspects of our present national and world society have an impact on and implications for education, so nearly all prospective changes in society will have their potential influence on education in the future. But some of these changes will have special influence upon the roles and preparation of educators. Thus, population trends will be significant. Educators will have to continue to contend with the constant inflation in population—up some 50 million or more between 1965 and 1980. But the increase will affect mainly those educators in the metropolitan areas, and even there mainly in the suburbs. In the elementary schools, however, the increase in numbers (as well as in percentage) of pupils will be considerably smaller from 1965 to 1980 than it was from 1950 to 1965. In the secondary schools the percentage of increase will be greater in the 1965-80 period than in the elementary schools, but then will slow down. Educators in central cities of the North and West will feel the effects of continuing migration of Negroes to those urban areas.

In metropolitan area development, the issue of governmental reorganization will continue to be paramount. In the large cities, educators are bound to be involved in experimental decentralizations of school districts while their fellow public officials are concurrently wrestling with ways to centralize services on a broader metropolitan area basis in such aspects of metropolitan life as transportation and land use control. Problems of housing, crime, welfare, pollution, recreation, planning, and the management of conflict and violence will continue to require experimental approaches. The role of schools and school personnel in such metropolitan area development will continue to be an issue. Shall school personnel and patrons break out of their relative isolation and participate actively, or continue to be inward oriented, overwhelmed with their own manifold problems, and to accommodate passively to the consequences of developments in these other fields?[10]

Though "the explosion of knowledge" is now a tired phrase, it is still the easiest way to describe the exponential growth in knowledge which seems destined to continue as far into the future as the mind can conceive. With the associated technological developments, this explosion will have both a direct and an indirect impact upon education. The expansion of knowledge sharpens the curricular choices, especially the old question: What knowledge is of most worth? Is the knowledge of processes such as planning, decision making and problem solving, information storage and retrieval, economic control, and socialization, more important than the traditional content of disciplines? Are process and content that separable? How should knowledge be organized for most efficient learning? One critical tool contributing both to the expansion and management of knowledge is the computer. By 1980 will the schools have developed and adopted effective uses of the computer in aiding instruction and in facilitating a management information system as a basis for better decision making?

The evolution of employee-management relations has already added new conflict to the public sector of employment, including both lower and higher education, and will certainly cause a new alignment of power by 1980 between public governing bodies and their workers. Will teacher bargaining come to be done on a profession-wide basis at state or regional levels rather than local district levels? Will school boards have become more aggressive in countering the demands of teachers with their own demands—perhaps demands utilizing various performance measures? Given projected shifts in the nature of work, in the occupational structure, and in career development patterns, how will the professions—education among them—be affected? Will the intake to the education profession, for instance, continue to be predominantly at the bottom in both age and position levels?

One of the most critical implications for educators of the prospective changes in society is the urgency of the better understanding and utilization of the change process itself in education. More will be said on that later.

These and other prospective changes are considered in some detail in the literature on middle-range futures, the period of the early 1980's. The first six volumes developed by the Designing Education for the Future project are one excellent source. But in the effort to stretch our minds only to 1980, we may miss some implications available from the thinking of those who have pushed on another twenty years to about 2000. Specifically, the work of Kahn and Wiener and their associates in the Hudson Institute, reported in *The Year 2000*, has made available to us some of the projections that may be significant for the roles and preparation of educators, especially the model which Bell, along with Kahn and Wiener, has called the "post-industrial society." Although they see the post-industrial society emerging more fully by 2000, it may have taken considerable shape by 1980 and is even now apparent in its early forms. Since this volume seems not as yet to have been discussed in the Designing Education for the Future reports, it is appropriate to summarize some of the projected features of this post-industrial society at this point.

Post-Industrial Society

The very name "post-industrial" presupposes a progression or evolution of modern society along a continuum from pre-industrial or small and partially industrialized, to large and partially industrialized, to mature industrial, to mass consumption, to early post-industrial and to visibly post-industrial. It is hypothesized that by 2000 the post-industrial stage will have been reached by the United States, Japan, Canada, Scandinavia, Switzerland, France, West Germany, and the Benelux countries. The United Kingdom, the Soviet Union, Italy, Austria, East Germany, Czechoslovakia, Israel, Australia, and New Zealand will by then have reached the early post-industrial stage. The other countries of the world will be spread out along the continuum, with large parts of Africa, the Arab World, Asia, and Latin America still at the pre-industrial or small and partially industrialized extreme end of the continuum.[11]

Because problems of production will have been largely solved and the consumption of these products made widespread throughout the societies at this stage, industrial institutions or organizations probably will have lost their primacy in society and key values will no longer derive from the business firm and from its entrepreneurs, managers, and policies. Instead, intellectual institutions probably will supplant the business firm as the major new institutions of society. These will include research corporations, universities, and various kinds of regional compacts for dealing with current problems. They will be the major innovative institutions, using the organization of theoretical knowledge as the basis for their innovations. Just as new kinds of non-governmental, non-industrial, non-university institutions have emerged during the past twenty-five years or so since the end of World War II and have become new sources of change—such as Argonne, Brookhaven, Lincoln Lab attached to M.I.T., and Jet Propulsion Lab attached to Cal Tech—so new needs for planning, research, and services will spawn new social forms during the remainder of this century. These, however, can be expected to be mainly research and intellectual institutions.[12]

The primary occupations of agriculture, fishing, forestry, and mining and the secondary occupations responsible for processing the products of the primary occupations will decline in importance. Growing in importance will be the tertiary occupations which serve the primary and secondary occupations and the quaternary occupations which serve the tertiary occupations and each other. These latter two groups are what we think of now as the service occupations. The quaternary occupations will attract a major portion of the most productive and creative people.[13]

At the present time the standard work year is around 1920 work hours, based upon a 40-hour week for approximately 50 weeks, less holidays. In the post-industrial society of 2000, the work year probably will be reduced to about 1100 work hours made up of a 7.5 hour working day, 4 working days per week, 39 working weeks per year, 10 legal holidays, 3-day weekends, and 13 vacation weeks per year, or 147 working days and 218 days off per year. Thus, a person could spend 40 percent of his days on a vocation, another 40 percent on an avocation, and have 20 percent remaining for relaxation. Some 50 percent might work a normal work year, another 20 percent might do additional moonlighting, 10 percent might be half-time hobbyists, and the remaining 20 percent be variously nonemployed or, in today's term, unemployed.[14]

For our purposes, one of the most significant characteristics of the post-industrial society—and one which even sheds light on events and trends of today's world—may be what Kahn and Weiner call "alienation amidst affluence." They say:

> Thus there may be a great increase in selfishness, a great decline of interest in government and society as a whole, and a rise in the more childish forms of individualism and in the more antisocial forms of concern for self and perhaps immediate family. Thus, paradoxically, the technological, highly productive society, by demanding less of the individual, may decrease his economic frustrations but increase his aggressions against the society. Certainly here would be fertile soil for what has come to be known as alienation. . . . [15]
>
> Of course, it is important to note that the lower middle class, making, say, five to twenty thousand dollars a year, are by 2000 not going to be very different from the lower middle and middle middle classes today. The upper (and middle) middle class in the year 2000 make, say, twenty to one hundred thousand dollars a year and will not necessarily feel independently wealthy. Both groups by and large will probably continue (with some erosion) with current work-oriented, advancement-oriented, achievement-oriented values. The extreme alienation we are talking about is restricted to minorities, which will be important in part because they are likely to be concentrated in the big cities, in part because they appeal to many of the more intellectual members of that ordinarily alienated group—adolescents—and mostly because their members will be literate and articulate and have a large impact on intellectuals and therefore on the culture generally.[16]

A mark of the post-industrial society, therefore, will be a shift from stoic or bourgeois values to those which are epicurean or materialistic. By "stoic," in modern terms, we mean "the responsible, duty-minded, hard-working, public-spirited American who feels obligated to do a good job for his government, company, or other institution, and works well without necessarily getting much recognition, supervision, or special reward."[17] By "epicurean" we mean the gentleman and humanist emphasizing sensation, emotion, and pleasure, bent on acquiring socially approved skills and experiences, with a suspicion of power, an untamed individualism, a disdain for the culture of others, and leisure as a goal.[18] A kind of epicurean view already characterizes the European upper and middle classes.

The more demanding and difficult professions would have to recruit their new personnel from those with stoic life patterns and from the children of parents who already identify with these professions.[19]

What is projected for the post-industrial society, therefore, is a shift in influence from industrial to intellectual institutions; in occupations from production-oriented to service-oriented ones; in the work year from about 240 to 147 days; in a sense of commitment from involvement toward alienation; and in values from the stoic to the epicurean.

These, of course, are "prospective" changes in society—some of which may not occur, since man's ability to select alternative futures for himself and the society in which he will live is increasing year by year. What do some of the more important and most probable prospective changes in society mean for the roles and preparation of educators?

IMPLICATIONS FOR THE ROLES OF EDUCATORS

Among the implications relating to roles of educators, perhaps the most significant involve differentiation and specialization, changing career patterns and new concepts relating to professionalism.

ROLE DIFFERENTIATION AND SPECIALIZATION

One of the healthiest developments in the teaching field in recent years has been the increasing differentiation and specialization of teaching roles, where teaching is broadly defined. This is one of the stages in the evolution of true professionalism in teaching, just as it has been in other professional fields. The concept, if not the practice, of the self-contained classroom in the elementary school is obsolete. The degree of specialization in teaching roles at the secondary school level, based mainly on subject matter categories, is inadequate. What is needed is a greater functional differentiation of the teaching role at all levels and the further development of specialists in these differentiated roles.

Three developments of the fifties accelerated this process. One was the acceptance of departmentalization in the elementary school. A second was the introduction of instructional television. The television teachers who appeared before the camera found themselves devoting time, effort and analysis beyond anything they had previously experienced in the preparation of what might be only a half-hour lesson. They learned that they needed to develop certain skills more highly than ever before. They found they needed various kinds of supporting personnel to prepare properties which would aid in the lesson. They came to recognize the importance of the skill of the cameraman in catching a particular picture or object or mood. And the receiving teachers in the rooms with television receivers, as well as the students, found that new skills of teaching were needed. More important, these teachers needed team relationships with the television teacher and with other receiving teachers and supporting technical personnel. Far from reducing the need for instructional personnel, the use of instructional television seemed to call for more personnel to carry out a greater number of specialized instructional functions in a much more complex social relationship.

The third development of the fifties was the emergence of team teaching. An interrelated group of instructional television teachers would be one example of a teaching team. Another would be a group of elementary or secondary teachers with a vertical or hierarchical structure. Such a group might comprise a team leader or master teacher, one or more senior teachers, several regular teachers, a teacher intern, a teacher aide, an instructional materials aide, and a clerical aide. Such roles correspond with specialized instructional functions and functions supportive of instruction.

Other more recent conceptualizations of the instructional process call for the specialized role of a learning diagnostician to analyze individualized learning patterns of students and a learning therapist to prescribe an individualized instructional program for a student, based upon the diagnosis of his strengths, weaknesses, and needs in learning. Both such roles would involve the use of the computer to supply diagnostic tools, to make records of past achievement immediately available, and to store a range of instructional programs for maximum flexibility. The use of a computer involves a programmer. And so it goes.

Goldhammer has conceptualized a functional educational organization made up of what he calls an instructional facilitation system, an adaptive system, and an administrative support system.[20] The second of these—the adaptive system—is the local district coupling or linking into the more general adaptive system widely regarded as vital to the improvement of our total educational structure. Not only would such an adaptive system include instructional and organizational change-agents, but also it would serve to apply in the local school operation the results of the research, development, and dissemination process from colleges and universities, state education departments, research and development centers and other agencies. Havelock has given special attention to the dissemination and translation roles in such a pipeline.[21]

Greater role differentiation is emerging and should be encouraged in school administration also. Goldhammer proposed that the school administrator be clinician in diagnosing, managing, and planning for the educational organization.[22] Ohm saw the administrator as instructing others on organizational structure and administrative rationality, helping them deal with and use the organization more effectively.[23] Lonsdale called for a central office position of an operations analyst in a medium-size school district to apply organizational theory to the operation of the school district and to play an important part in a continuing, systematic planning process for the school district.[24]

Corresponding role differentiation and specialization is developing and is badly needed at the higher education level. More adequate role analyses and definitions, of course, constitute the foundation for such differentiation and specialization.

CHANGING CAREER PATTERNS

New career patterns need to be fostered. Young people should be given a better understanding of the multiplicity of educational roles available to them as career choices, so that kinds of choices which tend now to come along after teaching, as secondary careers—in counseling, administration, research, higher education, and the like—become primary careers, or at least direct career goals. As more people have two or three careers—rather than only one—in a lifetime, we will need more effective arrangements for attracting people to education in their thirties, forties, and fifties after they have already had a career in a different field. At the least we will need this kind of intake to make up for the increasing loss of mid-career educational personnel to other endeavors as part of the increased flow back and forth among careers.

A NEW CONCEPTION OF PROFESSIONALISM

In that sub-system of American society which is called "the professions," educators have long aspired to full status and recognition, comparingly themselves alternately hopefully, plaintively, and peevishly to medicine and law. It seems that sometimes we can almost hear the professional professionals ask, breathlessly, "Have we made it yet?"—to which the answer is probably, "Not quite." Yet even as education is trying to fulfill all the old criteria for professions, the criteria themselves are changing and a new conception of professionalism is developing, not just for educators but for other fields as well. Practically gone is the self-sacrificial, emotional kind of devotion to duty and dedication, with mainly internal, psychological rewards—which makes Joy Elmer Morgan's description of teaching as "our profession glorious" sound quaint. In its place is not just the new militancy calling for more generous external, social rewards for teaching. There is also a new sense of political skill and power, a willingness to do political battle with school boards, boards of trustees, citizen groups, and even legislatures.

Evans[25] conceptualized the shift taking place as one from a sacred to a secular "organizational mind-set." The sacred organizational mind-set grows out of the old middle class value system which views society as more or less classless and mobile, accepts the rural myth of our economic system as an entrepreneurial system, and values individualism, competition, and opportunity limited only by ambition and initiative. This mind-set spurns collective action and accepts the authority of superiors. The holder of this view—typically a young woman from a small town college—is eager to win the recognition and approval of superiors and sees organizational relationships as familistic in character.

The secular organizational mind-set grows out of the new middle class value system which recognizes the class structure of society and accepts collective action. The holder of this view—more likely a young man reared and educated in a city setting—is suspicious and mistrustful of authority and limits his relationships with superiors to objective and official roles. He views himself as equal to his superiors outside their official positions and views his own employee status as equal in its importance to the achievement of the organizational goal to that of administrators, and perhaps of even greater importance. He sees organizational relations as contractual in character.

Applying Etzioni's compliance theory[26] to the analysis of this shift in professional orientation illuminates it from another vantage point. Teaching has tended to represent a kind of involvement which Etzioni calls "moral," in an organization which has tended to use a "normative" kind of power. Now it would appear that the kind of involvement in the teaching profession is increasingly what Etzioni calls "calculative," and the kind of power used is correspondingly "remunerative" rather than normative.

The Kahn-Wiener model of post-industrial society, described above, is also applicable. Are Evans' sacred organizational mind-set and Etzioni's moral involvement with normative power conceptually synonymous with the Kahn-Wiener stoic value? And, likewise, are Evans' secular organizational mind-set and Etzioni's calculative involvement with remunerative power conceptually synonymous with the Kahn-Wiener epicurean value? I think so. At least there is a common core running through them.

The question facing our society, and particularly the profession of education, is whether professions as we have known them can survive the transition in their members' values from the sacred-moral-stoic to the secular-calculative-epicurean. At least one answer may come from another issue in the evolution of the educational profession: whether it can shore up the quality of its professionalism by giving more rigorous attention to the need for more systematic organization of both the theory and practice contained in its sustaining body of knowledge. This issue leads to a prime implication of societal changes for the preparation of educators.

IMPLICATIONS FOR THE PREPARATION OF EDUCATORS: CODIFICATION OF THE CHANGE PROCESS

For well over a decade now we have been change-conscious and change-oriented in education. We have also achieved a lot of change, but most people would think not enough. Not only do we need drastic further changes in our programs of preparation and continuing professional development of educators, but we also need to incorporate in these educational programs more systematic attention to the nature of the change process. Much has been learned in recent years about the nature of change in education and of change in other social institutions, but this knowledge lacks organization and an adequate taxonomy. There are still too many contradictions in the theory which has been developing. For example, Guba and Clark have conceived the theory-practice continuum, or what Wiesner called the information transfer chain, as made up of four stages: research, development, diffusion, and adoption.[27] This conception has been shared by many others. But Goldhammer suggested that a more reasonable progression for the chain would be one proceeding "from experience to experimentation to diagnosis, to research, to application, to further experimentation, and so on, constantly recycling the process."[28] What is the best sequence of procedures for converting knowledge to action? Or what sequences best fit what kinds of situations?

The questions about change needing answers are innumerable. What are the variable roles of change-agents under varying conditions of organizational climate? What are the psychological qualities which make people behave toward change in a way that makes it possible to classify them as innovators, early adoptors, the early majority, the late majority, and the laggards, as Everett Rogers has done? Is there any way of predicting incipient "system breaks," as Kenneth Boulding has called them, in the future development of present systems? Is there any way of predicting the reaction of the system to these system-breaks? Is there any way of classifying those educational changes which can reasonably be locally-initiated, regionally-initiated, state-initiated, or federally-initiated? Such questions as these suggest the kind of knowledge about change and process that is needed. But while the knowledge about change is gradually being codified, there should be a dramatic increase in the attention given to the subject of change in preparatory and in-service educational programs for educators. The development of skills and knowledge about change and the motivation for change among educators will depend in part on such an emphasis.

IN CONCLUSION

After reviewing the nature of futurism and some of its literature, I identified some prospective changes in society which seem of particular significance for the roles and preparation of educators. Special attention was given the Bell-Kahn-Wiener model of post-industrial society as being unusually interesting and less widely known than many other projections. The implications of prospective changes in society for the roles and preparation of educators were developed around four themes: role differentiation and specialization, changing career patterns, a new conception of professionalism, and the codification of the change process.

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CHAPTER 2

Role and Responsibilities of Institutions of Higher Learning

Part One

The Emerging Role of Higher Education

NOVICE G. FAWCETT* AND JOHN E. CORBALLY, JR.**

Institutions of higher learning in the United States and, for that matter, in the rest of the world have faced changing demands from various internal and external publics throughout their histories. Universities in the United States have traditionally been much more subject to demands from external publics than have been their counterparts throughout the world, although this situation has changed rather rapidly and dramatically in several European nations in recent years.

Our purpose in this paper will be to examine certain general problems facing American higher learning as society once again reappraises its expectations for its colleges and universities, and to look more deeply at the specific area of the role of institutions of higher learning in preparing educators to meet emerging needs.

Much of what we are to characterize as "emerging needs" has been defined in previous conferences and publications in the "Designing Education For The Future" series. A review of these and other implications, however, makes clear that *the major emerging problem for education is still the age-old need to adapt methodology, content, technique, and purpose to meet ever changing school conditions.* A key factor in today's discussions of this ancient problem is the conviction that the current rate of change in social conditions is greater than ever before —a belief or assumption that we have decided to accept without an analysis in depth. What we are discussing then, are efforts of institutions of higher learning to adjust to shifting and conflicting demands in a time of real or imagined rapid and major social change.

**President, The Ohio State University*. Formerly teacher and superintendent, Ohio public school systems. Holder of honorary degrees from numerous institutions and awards for community and educational service.

***Vice President for Academic Affairs and Provost, The Ohio State University*. Formerly professor of education and executive assistant to the president, The Ohio State University. Author of *School Finance;* co-author of *An Introduction to Educational Administration* and *Educational Administration: The Secondary School.*

THE "TRADITIONAL" UNIVERSITY

Many educators and even more lay citizens are still possessed of an image of a college or university as a calm, sheltered, and peaceful oasis in a troubled world. However, the faculty of most universities of any size and complexity is itself divided about questions of university purposes, so it is little wonder that external groups find their views of the nature of a university somewhat unrealistic and distorted.

Of special interest are the pressures within a university between the faculty involved in areas clearly labelled "professional fields" and those involved in fields traditionally viewed as "without vocational objective." These pressures and the usual university image that the latter fields are "more respectable" than the former have led many faculty members in professional fields to disavow many of their ties to the practitioners in the profession concerned.

In our own special field of Education (as characterized by the capital E) this seeking after respectability in the traditional university has been particularly apparent. The recognition that it may be possible to "prepare educators" is honored by the creation of colleges of "Education," but ignored in preparing educators to teach at the college level. Research into problems of education has lagged behind research into many other less crucial areas, and the university research into such problems has had little influence upon the practice of the practitioner. The university faculty in "Education" has seldom been at the forefront in curriculum development or evaluation processes at the university level and can demonstrate little real competence in this field to the students who are preparing to be teachers. While some of the comments are obviously both unfair and unfounded, student reactions to baccalaureate programs leading to teacher certification are generally not favorable. Logic would appear to dictate that programs designed and managed by experts in education would be superior models for all of higher education to attempt to emulate, but such is not the case.

In general, the relationships between the university professor of education and the educationist in the field have been either strained or nonexistent. Because of the gaps between "preaching and practice" indicated above, and because the practitioner has not been led to look to the university for real solutions to real problems, the basis for a meaningful and viable field-campus relationship has not existed. In many cases, the continuing attendance of practicing teachers and school administrators in graduate education programs is because of certification and/or salary schedule requirements rather than because of a feeling on the part of the practitioner that the graduate work will have a direct and easily-discovered influence upon his daily practice.

In short, then, it is our contention that one traditional weakness in the ability of higher education to exert its appropriate influence in the preparation of educators has been the unwillingness of the university to adopt practical goals as respectable goals. Of equal concern in the field of education has been a general "feeling" that teaching is an art that comes automatically to any educated person and that the preparation of teachers—or the claim that one is going to undertake to prepare teachers—is an activity which ranks at the very bottom of a long list of practical goals. The preparation of physicians, of engineers, or of farmers has reached a much higher level of academic acceptance in most universities than has the preparation of teachers, because of the influence of these two concepts.

CHANGING UNIVERSITY ATTITUDES

The partial or full isolation of universities from real concerns about meeting existing educational problems has been under heavy pressure in recent years. Several factors have led to this pressure. *First,* teacher organizations as well as school administrators and governing boards have begun to question the value of university credits as major factors in salary schedules. Alternatives to such credit—including certain kinds of travel, school district workshops, professional activities, and participation in conferences—have been accepted in many districts. The fairly rapid growth of such alternative arrangements is a clear danger signal to the perceptive university that its meaningfulness is in doubt among even those who should be expected to understand it best.

Second, the entire university has come under increasing pressure from many groups—particularly student groups—to become a more relevant social agency than it has been in the past. These pressures are particularly applicable to the field of education, but have been directed with vigor toward other targets which have traditionally been immune from demands of current realism. Students are asking why the universities do not make the humanities relevant, for example. In the face of such questions, universities are reviewing the entire range of responses to social needs and at the forefront of such reviews are examinations of university relevancy in fields where relevancy should be achieved most readily. Such a field is education. Faculties of education are undertaking "agonizing reappraisals" of their relationships to the practitioners in elementary and secondary education and of the role which should be theirs in the process of the general restructuring and redirecting of higher education. Faculties of education which are not engaged in such reappraisal are being—or soon will find themselves being—replaced by other groups who are facing such questions. It should be apparent that the universities must insist that these questions be faced and that they cannot afford to support jurisdictional disputes concerning the rights of one group or another, while ignoring problems concerned with the entire university.

A major problem in the new university concern for meeting society's current needs is the question of the role of the university as a direct social action agency. Our view concerning this question—a view incidentally with which many will take exception—is best expressed in the following excerpt from an address given by Dr. Corbally to a group of students early in the 1968-69 academic year:

> We are a University, and society asks us to prepare people to serve society by creating within them the ability and the desire to solve social problems. A university can only indirectly solve social problems; to ask it to do otherwise is to ask it to do what it is neither organized nor funded to do. It is our graduates who must solve social problems, and it is up to us to insure that we provide them with the understandings, the knowledge, the skills, and the desire to do so. If our graduates are unaware of the background and the magnitude and the components of racial problems in our society, then we have not done our job. If our graduates are unaware of the meaning and the causes and the results of human poverty, then we have not done our job. Our mission is to prepare people, and we have a great deal still to improve before we can claim that we have met that requirement. If, as some seem to imply, we must, in addition, be the agency of society which takes direct action to eliminate poverty and war and discrimination, then we must receive such a charge and the necessary support from society. I believe that such a charge is not appropriate for a university and that we must concentrate on the task which we still perform imperfectly—namely the preparation of generations of people who will through such agencies as city and state and Federal governments, as social welfare groups, as business and corporate institutions, and others not only recognize and understand these problems, but have the skills and the will to solve them. It is in this preparation effort that our challenges lie.

A *third* concern which has also reached new importance in recent years because of increased student activism revolves about the quality of university teaching. The old idea that any educated person can become a teacher without further ado has been challenged for years by the educationist, but now is under attack by the university student. Unfortunately, the demands that university teaching be improved have not been voiced in ways that would cite the colleges of education as exceptions nor have most universities found it expedient to turn to colleges of education to design plans to lead to solutions to the problems of university teaching. On our own campus, for example, perhaps the most significant work in upgrading teaching methodology now underway is being done in the College of Medicine under the direction of graduates of our College of Education—individuals who have found a much greater readiness for and commitment to curricular revision in medicine than they found in education. As institutions, however, *Universities are no longer able to ignore the preparation of faculty members as teachers in addition to their preparation as scholars.* In the same way that the school teacher has been criticized as one who is "all method and no content," so the university teacher is now being characterized as one who is "all content and no method." *Neither extreme is acceptable* and universities, among other agencies, must develop plans to deal with problems at both ends of the spectrum.

In summary, then, universities have found it necessary—or, perhaps more accurately, are in the process of finding it necessary—to bring new relevancy and new breadth into their efforts to prepare educators at all levels. On the one hand, current efforts—particularly at the graduate in-service level—are being rejected by individual teachers and by school districts as being inadequate to meet current needs. On the other hand, universities themselves are under heavy fire because of the lack of attention paid to the teaching competency—as opposed to the research or scholarly attributes—of their faculty members. And joining these two concerns is *the new demand that the university deal with real problems in a meaningful way;* the demand that the university "mix it up" with the real world even at the hazard of tarnishing, if you will, the traditional purity of higher education.

PROBLEMS IN DEVELOPING A NEW ROLE IN PREPARING EDUCATORS

Up to this point, we have attempted to establish two concepts: *first,* that universities have generally not related well to practical needs in the field of education whether those practical needs were found "out in the field" or on the campus; and *second,* that a series of factors makes it necessary for universities to overcome this traditional deficiency. As the university attempts to move ahead with this remedial action, it faces several basic problems in addition to the difficult task of overcoming inertia.

Let us assume that we do not need to deal here with the inertia question. Let us assume that none of us who study the reports prepared for this conference need to be convinced that the emerging needs of education and of society cannot be met unless all social agencies become concerned about and work together to meet those needs. Our question then is not: "Shall institutions of higher learning play a role?", but rather: "How shall institutions of higher learning meet their responsibilities?" It is up to groups such as those involved in the project, Designing Education for the Future, to insure that inertia is overcome. We shall only mention that as a necessity and not attempt to discuss it in detail.

RESPONSIBILITY

But more difficult problems than inertia exist. Several of these problems exist on the campuses and several in the field. On campus, we still find evidence of what might be called the "franchise problem." This problem leads to arguments and dissension between colleges of education and other units on campus concerning the control of educator preparation. Such arguments lead to more emphasis on questions of control than on questions of what is to be controlled. *The university itself,* rather than any of its parts, *must accept the ultimate responsibility for the preparation of educators.* Moreover, it must accept this responsibility in such a way as to insure that no part of the university can deny its role in this process. Just as we say that a public school system should accept responsibility for assisting in the survival of the species "teacher", we should also recognize that the university system must assist in this activity.

TEACHING QUALITY

The university also must begin to pay more attention than it does at present to the teaching competency and qualifications of those it admits to its faculty ranks. Parents have always raised questions about the quality of teaching at the elementary and secondary levels, but have not done so to any great extent at the university level. Students are now making their voices heard on this matter with increasing intensity and as universities seek faculty members, they will need to be as concerned about the criteria used to measure teaching potential as they are about measures of scholarship. *The preparation of educators needs to be expanded to include the provision of a teaching component in the preparation programs of those who aspire to become university educators.* This expansion of preparation programs is perhaps more pressing and more crucial than is the addition of more subject matter components to the programs for prospective elementary and secondary teachers.

THE EDUCATOR ROLE

These problems, however, are minor when compared with the questions about the nature of the people to be prepared under the title of educator. It has been clear for some time that the good teacher is far more than a human encyclopedia who emits information at appropriate times and in appropriate doses. Almost all of us recognize that *the crucial process in any school, college or university is the learning rather than the teaching process.* The teacher facilitates this learning process in many ways but we have for too long expected the individual teacher to be an across-the-board educational expert.

The definition and preparation of an educator in the formal sense is a difficult task. But what about the preparation of those who are seldom defined as educators, yet whose teaching roles are immensely important? What about, for example, the training of prospective parents as prospective teachers? Or, of the television news broadcaster or the magazine writer? It is obvious that we have paid too little attention in the past to the educational impact of several agencies whose impact may be greater than is even that of the schools. The educational impact of television, for example, has scarcely been realized and certainly television producers are not being trained as if they were to become educators in spite of the fact that this is precisely what they will become.

As the university attempts to restructure its efforts in the preparation of educators, it will, then, need to pay new attention to the two questions: *"Who is an educator?; What does an educator do?"* Space does not permit an analysis of the educational contributions to be made by those who enter various professions and occupations or who find themselves playing various roles in their lives. Our major attention here must be devoted to those who are defined as educators in the formal sense. It is important to stress, however, that *we need to continue to study the educational contributions made by a number of groups whose efforts in this area are normally overlooked, and that we need to expand our concepts of the agencies and individuals who provide an input into the educational experiences of a child growing up in our society.*

SPECIALIZATION

But even in the narrower sense, if the university is to participate in the preparation of educators it must deal with the problem of definition. An old concept which recognizes the value of intelligent specialization is now reappearing in education under the name of "differentiated staffing patterns." The development of new technologies and the creation of new corporations dedicated to the profitable and rapid introduction of technological innovation into the school setting promise to revolutionize teaching methodology and to create new needs for educational specialization. Clearly some of the best teachers of the future will be computer systems specialists. The university needs to insure that its programs for preparing educators encompass this and other related developments.

It is also becoming clear that subcultural differences in American society lead to specialized teaching needs which have previously been unrecognized. The young man or woman from suburban America who becomes a teacher in the inner city faces an instant language barrier which may be greater than that faced by the tourist from New York who wanders into cockney London. This problem must be met by language training, by the provision of intercultural interpreters, or by assignment of teachers to areas where such barriers are not expected to exist.

CERTIFICATION

But even if we were today able to describe in some detail the variety of educational specialists which are required in a modern educational program and the special attributes which various specialists must have if they are to succeed in various subcultural settings, the universities must still overcome problems related to teacher certification if they are to be free to design and to offer programs aimed at providing the required educators. In most states, universities and state departments of education work together to design certification patterns, but the final control of such patterns rests with the state agency. If universities are to break with traditional practices in preparing educators to meet emerging needs, they must be able to do so with the full support of state teacher certification agencies. Ideally, *certification requirements should reflect real classroom needs and should encourage if not mandate the development of preparation programs which meet real needs.* Too often, however, certification requirements lag behind real needs and an experimental university program must be "bootlegged" because of certification requirements rather than operated openly and proudly.

A NEW UNIVERSITY ROLE

It is, however, inappropriate in this setting to dwell upon problems to the exclusion of a discussion of the possibilities. The preparation of educators to meet emerging needs is such a complex challenge that all of our time might be devoted to an attempt to prove that it is impossible to do what we know we must do. This effort would seem to us to be most unproductive, so at the risk of overlooking some additional major problems, let us look at a few of the functions and services which can and should be included within the role and responsibilities of institutions of higher learning in preparing educators. The university role would seem to us to be within the traditional three areas of responsibility assigned to most major universities—teaching, research, and service.

RESEARCH ROLE

Because of needs mentioned above, the research component might best be mentioned first. Many of the problems facing education today are not new problems. If, as seems clear, we need to develop a better plan to utilize educational teams which will include educators with different areas of specialization, it seems equally clear that university research involving industrial engineers, hospital administrators, and business administrators—to name but three "outside areas—can assist in defining the problem and designing the solution. A new university research effort closely related to field problems and non-parochial in design and in staff can provide new understanding of the past and of the emerging needs of our educational system at all levels.

It is also clear to us that university research teams studying educational problems should include practitioners in meaningful ways. The term "practitioner" should be defined broadly to include representatives of all those agencies participating in the educative function. Too often, for example, we have studied textbooks and their utilization in the learning process without ever involving the creators of the textbooks in our studies. In the vernacular, we often "rediscover the wheel" because our research design and research staff are too narrow for the subject under study.

At the same time that our research efforts attempt to clarify the questions as to *who* and *what* we should attempt to prepare, the universities and various other "user" agencies need to design evaluative research efforts to measure the effectiveness of preparation programs. One reason for the survival of the "anyone-can-teach" school is the lack of evidence linking preparation programs with teaching effectiveness. *New preparation programs should certainly be designed with built-in evaluative devices.*

THE TEACHING ROLE

One key role of universities in preparing educators to meet emerging needs is, then, the design and completion of research efforts both to assist in the definition of the role of the educator and to evaluate preparation programs. A second role is in the teaching mission of universities. *University programs for the preparation of educators need to be based upon the defined needs of the field—including the university itself—for educators.* The design and the offering of preparation programs need to be seen as an all-university responsibility in which a college of education has a unique and a key role, but not the only role. In addition, the design and conduct of preparation programs should include full participation of many external agencies. Here again, *it seems important that the university* maintain its leadership role, but that it *encourage outside participants to be involved in university programs in meaningful ways.* The university programs need to use "the entire world" as their laboratories. The concept that a single university-operated laboratory school could represent the world in any meaningful way seems totally discredited in the light of modern needs. Much of the in-service or graduate level education offered by universities should take place in the school setting rather than in the university setting. This practice not only provides for better field-university coordination but plays a valid and important role in continuing the education of the university faculty member. We believe, as a matter of fact, that in educator preparation programs the university faculty member and the practitioner need to approach almost complete interchangeability. While in certain special areas this goal is undoubtedly unrealistic, it is a general goal which seems worthy of careful consideration.

THE SERVICE ROLE

And finally, in the service component of the university role there needs to be a clear recognition that much of what is good and necessary in educational methodology comes slowly because it is not presented and explained to teachers, to parents, to taxpayers, and to others in meaningful ways. If team teaching or differentiated staffing patterns are needed, we need to be able to describe them and their utility in clear and understandable terms. One great factor in the success of the land-grant university concept has been the ability of agricultural extension personnel to bridge the university or professional-average citizen gap. In the field of education, universities are going to need to build upon this type of extension service to bridge a number of gaps.

An extension-like activity which is indicative of university efforts to meet a number of the requirements mentioned in this section of the paper is described succinctly in the following news release from Ohio State. As simple as this effort might seem, it is sad, but true that it represents a relatively novel approach for a college of education.

> A new twist to the old 'whistlestop' campaign so familiar in American politics is being used by Ohio State University's College of Education to keep in touch with the 'grass roots.'
>
> Members of the administration and faculty of the college are meeting with college alumni, school principals, school board members and school teachers at informal dinners in cities across Ohio.
>
> Purpose of the get-togethers, says College of Education Dean Luvern L. Cunningham, is to 'share with the people in the schools what's going on in the college in terms of new programs and to let them tell us what's needed.'
>
> He says the college benefits by getting new ideas for changing teacher preparation programs, identifying areas where research is needed, and discovering what new services the college or the university as a whole should be giving the schools of the state . . .
>
> 'Our reception at the various cities has been cordial,' says Cunningham. 'We have picked up some good notions and found some soft spots in our program from talking with the people who are on the front-line in education.'

TOTAL UNIVERSITY CONTRIBUTION

Success, however, in the critical and significant task of preparing educators to meet emerging needs will not be experienced by institutions of higher learning if they merely attempt to add some measure of quantitative or qualitative "frosting" to their existing efforts in the three mission fields of teaching, research, and service. The needs are so great that the approach must first generate a philosophy of commitment which has heretofore not characterized most universities as they approach the task of preparing educators. If one reviews the proposals presented by Clifford Bebell in *Emerging Designs for Education,* (pp. 1-72), and particularly those proposals relating to the preparation of educators, one is struck by the scope of the need. Such words as "experiment," "explore," "new and creative," and "new approach" are essential components of the proposals. The development of approaches to the preparation of educators which are new and creative cannot be accomplished unless institutions of higher learning are, in fact, willing to develop new and creative ways of viewing the institutional responsibilities for the preparation of educators.

The fortunate aspect of this problem and of the necessity to attack it is that *the discovery of a solution is not only essential to the elementary and secondary schools but is also essential to the survival of the universities themselves.* Increasing pressures from a variety of sources are directed at the university and the manner in which it performs the teaching function. Not only do other agencies look to the university for assistance, but the university must also look to itself to provide solutions for university teaching problems. This need is perhaps the crucial emerging need facing institutions of higher learning.

IN SUMMARY

The preparation of educators to meet emerging needs is a social need to which many social agencies must bring their efforts and their talents. Too few agencies have been involved in this undertaking in the past and the definition of the educator has been too narrow. As necessary as it is to expand the sense of responsibility for this crucial effort, it is clear that certain social agencies will and must assume special and primary responsibilities. Among these agencies are the institutions of higher learning which, as both developers and users of educational personnel, are—or should be—particularly aware of emerging and unmet needs in preparing such personnel.

It is a major thesis of this paper that universities are beginning to overcome their traditional reluctance to accept major responsibilities for practical problems both because of the belief that universities possess special resources to deal with such problems and because a variety of university publics, including students, are demanding that universities exercise leadership in dealing with current and real problems. It is also our thesis that the assumption by higher education of its proper responsibility in the preparation of educators does not require a radical restructuring of the university nor of its roles in research, teaching, and service. What is required—and this requirement is more easily stated than met—is a total university commitment to the importance, and to the solution, of the problem and a willingness on the part of the university to involve many more people in the process of preparing educators than has usually been the case.

The university itself faces the same unanswered educational questions faced by other elements of the educational system. Many of us believe that too many in higher education have not yet recognized this fact and are, therefore, able to speak of educational problems as if they existed only in city school districts or in rural areas. A first and crucial task—as universities accept their role in meeting emerging educational needs—is that universities must recognize that most, if not all, of these needs are found within higher education. They must also recognize that the purpose of attempting to meet these needs is not merely to help someone else but, in fact, is to attempt to guarantee the survival of higher education in America as well as the survival of the other components of the system.

Bibliographic Notes

While quotations have been minimized in this paper, the following references are particularly valuable in developing either amplification of many of the points contained herein or views which differ from those expressed by the authors. Appreciation is expressed by the authors for the opportunity to review a confidential draft of a preliminary statement by Charles E. Silberman related to the Carnegie Study of the Education of Educators.

(1) Publications of the Eight-State Project: Designing Education for the Future (Republished by Citation Press, Scholastic Magazines, Inc.), including

Implications for Education of Prospective Changes in Society, January, 1967.

Emerging Designs for Education, May, 1968.

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(2) Publications of the American Association of Colleges for Teacher Education, including:

Evaluative Criteria for Accrediting Teacher Education, 1967.

Harold Taylor, *The World and the American Teacher,* 1968.

(3) Committee for Economic Development (New York, N. Y.), *Innovation in Education: New Directions for the American School,* 1968.

(4) American Council on Education (Washington, D. C.), *The Future Academic Community: Continuity and Change,* 1968.

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Part Two
A New Look At Old Issues

CHESTER C. TRAVELSTEAD*

In order that I may move directly to the several points I wish to make, I would like first to list five assumptions on which these points will rest. To move forward from such assumptions will prevent in part, I hope, a "rediscovery of the wheel," as Fawcett and Corbally have so aptly used the term. The assumptions follow:

1. There are, indeed, many emerging needs in our society which in several respects are quite different from—and far more complex than—the needs of previous generations.

2. The various educational institutions at elementary, secondary, and college or university levels must address themselves more specifically and more effectively to these needs than they are now doing. To ignore this obligation would not only break faith with the society they are presumed to serve, but could also jeopardize the actual survival of these institutions.

3. None of these kinds of educational institutions alone can be

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**Academic Vice President, University of New Mexico.* Formerly, Dean, College of Education, University of New Mexico.

expected to meet any appreciable segment of society's needs. In fact, even a combination of the various levels of educational institutions—functioning without regard to other societal institutions—cannot and should not be expected to solve the major problems facing our society today. These educational institutions, including those responsible for higher education, simply are not designed, equipped, charged, or financed to undertake alone tasks of such magnitude.

4. The "preparation of educators" must be viewed in a much broader and more comprehensive sense by institutions of higher learning, than has been their custom in the past, if they expect to have continued support. The "educators" referred to here are teachers and supporting personnel for educational institutions at all levels. Now, more than ever before, higher education should accept its responsibility to prepare competent teachers not only for elementary and secondary schools, but also for colleges and universities.

5. Institutions of higher education are now publicly on trial by their students, alumni, laymen, and representatives of several professions whose members depend in part upon these colleges and universities to provide guidance, leadership, and both pre-service and in-service education. And if these institutions ignore—or prove to be ineffective in helping to meet—these newer expectations, now and in future, they may well expect to be redesigned in major ways, or replaced altogether. Society established them and society can and will replace them if necessary.

PROBLEMS RELATING TO THE EMERGING ROLE FOR HIGHER EDUCATION

Fawcett and Corbally have already listed and described very well several problems which must be overcome if higher education is to be more effective in preparing educators for tomorrow's educational institutions—elementary, secondary, and collegiate. I agree with most of their analyses and conclusions in this connection and shall not, therefore, repeat them here. But I do wish to elaborate on a few of them and to offer slightly different conclusions about one or two others.

ATTITUDES RELATING TO WHAT IS RESPECTABLE

First, I would like to comment upon attitudes concerning the "respectability" of *some* university missions and fields of study and upon feelings of disdain for *other* fields of study and responsibilities assumed by universities. As Fawcett and Corbally have pointed out, such attitudes are prevalent on many campuses today and do indeed constitute a serious problem. The question is *how* to resolve it in order that these institutions may perform more effectively their broader obligation to the society which sponsors and supports them. Hierarchies of importance based primarily upon what was and was not included in the traditional university's realm of charge and responsibility simply cannot be allowed to dictate the purposes and functions of tomorrow's institutions of higher learning. Administrators of these institutions must not permit specters of the past to determine visions and possibilities for the future.

It seems obvious that one major deterrent in this connection is the stated or implied commitment most institutions of higher education seem to have to the traditional *subject-matter disciplines,* as such (chemistry, history, literature, mathematics, philosophy, and languages, for example). As long as faculty members themselves see their first and continuing responsibility to their respective disciplines—rather than to their college or university which should have and usually does have a broader mission—it is difficult, if not impossible, for such an instituton to serve society in broader and more inter-disciplinary ways. And as long as the institution itself designs and offers its chief rewards to faculty on the basis of *research* narrowly confined to a sometimes parochial discipline, the achievement of broader objectives seems to be almost impossible.

TENURE OF FACULTY MEMBERS

Another facet of this same problem is *tenure* for faculty members after they have served brief periods of probation at an institution. No one would deny that, in principle, tenure is fully justified. And most thoughtful persons will argue that it does and should prohibit unfair treatment and unjustified dismissal of faculty members by administrators or controlling boards. On the other hand, it should be obvious that attempts to tie tenure too closely to objectives of special disciplines or to other parochial or even selfish goals would make its justification questionable. Furthermore, tenure, when abused, can make it extremely difficult for an institution to be able to select and achieve broader goals. Therefore, tenure might well be reexamined with the hope of eliminating any of its aspects which prevent an institution from performing its proper role in behalf of society, but with the continued stipulation that it must not be possible for individual faculty members to be abused or unfairly treated.

PROVISIONS FOR THE PREPARATION OF EDUCATORS

The claim advanced by some that deliberate and organized attention to the professional components of a program designed for the preparation of educators will produce a better or more effective teacher than will a casual and non-professional approach is without adequate concrete evidence to support it. There is little if any reliable research which proves that persons who have completed programs of teacher education, as presently organized, are better teachers than those who have not done so.

I must agree, at least in essence, with Fawcett and Corbally when they say, "Logic would appear to dictate that programs designed and managed by experts in education [those on college of education faculties] would be superior models for all of higher education to attempt to emulate, but such generally is not the case." In reality, there *are* some fine models of teaching excellence in colleges of education. Moreover, many cases of effective teaching can be found in elementary and secondary school classrooms staffed by teachers who are graduates of organized programs of teacher preparation planned and coordinated by these same colleges of education. But there is no definite assurance, as yet, that graduates of such programs will be superior teachers or that persons who have not been graduated from such programs will not be superior teachers.

If this observation is true, and many contend that it is, one might well conclude either that there is insufficient research related to the matter, or that the nature and amount of the professional segments of such programs are inappropriate and inadequate. My long experience as an administrator in colleges of education leads me clearly to support *both* of these conclusions. In a majority of present programs designed to prepare persons for teaching in elementary and secondary schools, only from one-sixth to one-fourth of the entire work deals directly with children and youth, with method, materials, learning theory, human growth and development, evaluation, objectives of education, and with the role of the school in society. Rather than agreeing that *too much* attention is devoted to the professional component in the total program of preparation, I submit it has received *too little* attention, considering the background and future needs of those expected later to guide effectively the learning of children and youth.

In nearly all preparation programs at the master's and doctoral levels in which future college and university teachers are enrolled, absolutely *no attention* is given to the ways in which the typical college student learns, grows, and develops most effectively, or to means designed to help the college professor to become a more effective teacher. In these graduate programs it is usually blandly assumed that mere knowledge of the subject matter itself—English, history, mathematics etc.—is sufficient; and that it is undignified, demeaning, and unnecessary in such programs to give any attention to the responsibilities of the college teacher in directing the learning of college students. And yet many now seem to be surprised that college students across the nation are rebelling not only at the irrelevance of material offered them in the classroom but also against the inadequacy, the deficiency, the ineptness, and sometimes the indifference of many college and university teachers. Perhaps we will soon be faced in college classrooms in this country with what the university professor in Latin America has been faced with for many years: if the teacher is not competent, well-prepared, and effective, the students jeer him or walk out—or both.

DESIGN OF THE PROGRAMS

Another problem which faces institutions of higher learning in their task of "preparing educators" is the rather common expectation that teachers for elementary and secondary schools can be properly and adequately prepared in a four-year period after high school graduation. To expect that appropriate and adequate amounts of general education, subject-matter specialization and professional education, along with the implications for effective motivation, can be "mastered" in such a period by the average student at this level is not realistic. Of course, many carefully selected students might, with proper planning and guidance, complete a full program within a shorter time—perhaps three years. But most students require five years, and no matter how we slice the present "four-year pie" for most students, we are not likely to be successful. However, any broad movement from four-year to five-year plans would have to be accompanied by huge amounts of public or private funds, which seem at the present not to be available for such purposes. In the meantime, we must continue with the inadequate programs offered in most institutions.

SOME UNRESOLVED ISSUES

In addition to the *problems* listed above, there are also several *issues* related to higher education's responsibility for preparing educators. Three of these issues, about which there is still considerable difference of opinion, are discussed briefly below. Until colleges and universities come to some agreement about the position they should take on these issues, they are not likely to be very effective in their efforts to prepare educators either for tomorrow's schools or for their own classrooms.

SOLUTION OF SOCIAL PROBLEMS

Fawcett and Corbally contend in their paper that ". . . a university can only indirectly solve social problems. . . . It is our *graduates,*" they say, "who must solve social problems, and it is up to us to insure that we provide them with the understandings, the skills, and the desire to do so."

Even though I am well aware that many persons might agree with the opinion that colleges and universities should not become involved directly in social problems, I am fully convinced that they should do so for several reasons.

I believe that the only way most graduates of an institution will be able later to help solve social problems is for them to have been involved directly with university sponsored social action programs while they were students at the institution. Most universities decided long ago that effective learning in certain areas must be accompanied by laboratory-type experiences. Their programs in biology, chemistry, physics, geology, anthropology, pharmacy, medicine, nursing, and teacher education have for many years included such laboratory-type experiences. More recently,

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preparation programs in political science, law, social work, economics, psychology, guidance, and public administration have included field experiences which are required of the students—under-graduate as well as graduate. These field experiences are frequently parts of "real world" projects designed to supplement the theory about which the university professors customarily "lecture" in the classrooms.

Another aspect of this same development in education is the great increase in cooperative education-experience programs in the fields of engineering, business, economics, government, and education. In such programs the student "goes to school" for a quarter or a semester on campus, then is assigned to work for pay during a similar period of time in a related business, industry, or educational or government agency.

The results of these classroom-plus-field experiences are many. Even though the primary purpose is perhaps the more effective preparation of the student, a concomitant outcome is at least some contribution to the direct solution of social problems. Consider, for example, some of the more recent projects in education and sociology dealing with problems of the inner-cities and ghettos. In many of these cases the sponsoring universities have accomplished two goals concurrently: a better education for the students involved; and the partial solution at least of some of the social problems existing in the areas covered by the projects.

In addition to such *regular* programs involving field experiences, many universities design and carry out, with federal or foundation funds, various *special* projects which are specifically designed to help solve particular social problems.

I would submit, therefore, that universities can, should, and do help solve a number of social problems without detracting from their more traditional charge of "preparing" students who later might address themselves to society's problems. This is not to say that all universities and colleges must engage in the direct solution of social problems. I am merely saying that many can and do.

DIFFERENTIATED STAFFING

A relatively new concept in several professions, including education, is that of "differentiated staffing." At least, the formal recognition and practice of more liberal interpretations of differentiated staffing are relatively new. Within the last decade, for example, several aspects of the medical profession, including some medical schools, have recognized and admitted that paramedics (persons with limited medical education) can perform quite well some of the tasks and responsibilities, which until recently were considered by this profession to be the exclusive rights of the medical doctor himself. And accompanying this recognition and practice has been the development of differentiated preparation programs which are in accord with the "differentiated staffing" concept.

It appears that a similar development is taking place in education. After the practitioners in this profession satisfied themselves and the public that teaching is, indeed, a profession, and that those properly prepared for it are "respectable" professionals, they began to recognize (and are now willing to admit) that paraprofessionals (persons having considerably less education than the regular teacher) are able to do very well many things to enhance the education of children and youth. When these paraprofessionals are thus used, the regular or master teacher is freed to do more of the things for the learner which others cannot do.

Differentiated staffing may be applied quite extensively to education at the elementary and secondary level, and also in a number of ways to higher education. If this concept is understood and implemented properly, the quality of education at all these levels can be enhanced. In fact, one might very well contend that the education of children and youth in our schools can be carried out efficiently and effectively during the next decade only if the policy of differentiated staffing is fully accepted and successfully implemented.

Some of the persons needed for this newer and more effective approach to education of our children and youth must be highly competent professionals who have completed extensive programs of preparation appropriate for their various specialties. Among this "master" group are teachers, principals, superintendents, supervisors, guidance counselors, school psychologists, school nurses, and nutrition specialists.

But also necessary for this more effective approach to education are those supporting personnel who work with and under the direction of the professionals. In this supporting group we have the various paraprofessionals, such as teacher's aides, "head-start" assistants, cafeteria or nutrition assistants, school office clerical and stenographic workers, special tutors, attendance helpers and home visitors, specialists in operation of educational media (including projectors, television cameras, videotape recorders, teaching machines, and so on), recreation and physical education assistants, testing specialists, and paramedics to work with professionals in the allied health fields.

Even within the "professional" category described above (teachers, counselors, psychologists, etc.) there must be some differentiation in assignments, expectations, and compensation—related to levels of competence and requirements. For example, certain aspects of the actual teaching function may be carried out quite adequately by an inexperienced person holding a bachelor's degree in teacher education—if the activities of such novices are planned and coordinated as a part of a team, under the guidance of an experienced master teacher whose competence enables him to carry out successfully the higher responsibility of planning, supervision and evaluation.

As has been stated earlier, a corollary of these differentiated assignments and responsibilities is differentiated preparation. For example, it is quite obvious that the nature and extent of preparation for the master teacher, the school psychologist, or the principal are considerably more demanding and time consuming than those for the teacher's aide or for the testing specialist who works under the school psychologist. The special tutor or the home visitor requires a far less extensive, a less rigorous and a considerably different type of preparation than does the superintendent or the guidance counselor. And the kindergarten or "head-start" helper can perform quite adequately under supervision with only limited formal preparation beyond high school graduation.

In addition to the *educational advantages* of the "differentiated staff" approach, there is also the matter of potential *financial savings*. If specific tasks at different levels of responsibility are identified and paid for according to these different levels, substantial savings can be made. For example, it is obviously a waste of money to require a master teacher, a principal, or a school psychologist to spend time in performing any task which can be *performed as well* by a person less highly prepared.

The implications of the "differentiated staffing" concept for higher education are both extensive and critical. For this concept can be implemented properly only if colleges and universities accept responsibility for the preparation not only of teachers and other professionals, but also of the paraprofessionals. Programs for the latter group are of an entirely different type and require a much shorter period of preparation than do the professional programs. Yet many reputable colleges and universities seem reluctant to offer any programs below the baccalaureate level.

It is not likely, therefore, that many of these institutions will, in the near future, wish to become engaged in the development and offering of one-year and two-year programs for these paraprofessionals, largely because of attitudes and images referred to earlier in this paper. And yet it seems obvious that such an obligation is theirs. If higher education is to play its proper role in "preparing educators," it must include this responsibility within its province.

"FRANCHISE" AND RESPONSIBILITY

This final point of "franchise" I will discuss only briefly. Fawcett and Corbally have described the problem as it has existed for some time on so many university campuses. But it seems that their description does not include some recent developments in this respect. My comments and predictions about it are somewhat more optimistic, as I look ahead to 1980.

With the help of the National Council for the Accreditation of Teacher Education (NCATE), the American Association of Colleges for

Teacher Education (AACTE), and many of the professional bodies [for example, the Modern Language Association, the American Historical Association, and the National Council of Teachers of English (NCTE)], most reputable colleges and universities have now agreed that teacher education is a total institutional responsibility. At the same time, however, they have also recognized that colleges or departments of education should have the particular responsibility for planning, coordinating and evaluating these programs for the preparation of teachers and other school personnel. And of course these same professional colleges and departments must design and offer the professional components of these programs, including student teaching, internship, and field experiences.

Such agreements have been supported on most campuses, both by the professional education representatives and by the arts and sciences faculties, since both groups have responsible and appropriate tasks under such a plan. And this is as it shoud be, it seems to me.

I predict, therefore, *more attention to the improvement of preparation programs* during the next decade *than to jurisdictional disputes* about them.

In fact, I also predict, and hope, that higher education will awaken to its larger responsibilities in the preparation of educators and will fulfill these responsibilities more effectively during this latter part of the Twentieth Century.

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Part Three

Local School System--University Collaboration

MELVIN W. BARNES*

For thirty years spokesmen for higher education have been engaging in self-blame for their lack of success in educating educators. In the 1930's Conant reached the conclusion that the university system of teacher development was ineffective. Now Fawcett and Corbally have examined it again and arrived at essentially the same conclusion.

During that period university-based critics have conducted a dialogue dealing mainly with problems internal to their own house. Their criticism has regularly singled out: (1) the unsatisfactory quality of university teaching that prevails in preparation and in-service work, (2) the friction between the educationists and the academicians, (3) the reluctance of the

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**Superintendent of Schools, Portland, Oregon.* Formerly, Superintendent of Schools, Oklahoma City, Oklahoma (1957-61); Assistant Superintendent and Deputy Superintendent, Oklahoma City (1950-57); Director of University Extension, University of California, San Diego (1946-50). Member of the Educational Policies Commission, and of the Commission on Presidential Scholars.

university to take teacher education seriously, and (4) the ineffectual campus-field relationship that seldom really delivers on its promise to provide realistic, laboratory-type experience in the training of educators.

Despite the dissatisfaction, preparation programs continue much as they have been, and in-service courses show little tendency to change. An outsider, merely looking on, is tempted to conclude that all parties to the enterprise are engaged in a vast conspiracy to perpetuate the system, even while confessing that it has proven relatively unfruitful.

Were it not for the compelling social demands now confronting education (particularly in the great cities), our hope for escape from the existing system would seem largely groundless. But history has grabbed us by the neck. We are driven by the demands of the times to produce realistic, relevant public schools. The mounting pressure of events will persist in mandating a reassessment of the whole program of education for educators. Pre-service courses, in-service programs, certification, as well as the institutional roles and commitments, will continue to be called into question.

What can a school administrator say that might help? As a contribution to the search for better ways to train educators, I want to offer some observations from the public school side of the fence. In the following paragraphs I shall try to describe some efforts that respond to the expressed need for change. These involve both the university and public schools in a genuine partnership resulting in a shift of substantial elements of the teacher education program to a new base in the public schools. To do this, of course, requires a certain readjustment of priorities and a reallocation of resources, but I believe the necessary conditions will be attainable within an acceptable range of costs.

Like many other school systems, Portland has had a good deal of experience with the well-publicized school-based approaches to teacher education—internships, the use of clinical professors, student teaching, and so on. Our conclusions can be summed up as follows:

1. Teachers can only be well prepared and continue in their professional growth in a creative, stimulating school environment;
2. The education of educators demands a strong emphasis upon research-based inquiry and activity—an emphasis seldom found in public schools, or in any schools for that matter; and
3. The teacher development program must lean heavily on in-school experience gained under appropriate supervision over a long period of time.

To expand on the implications of these conclusions I will describe a public high school that will open in September, 1969, in Portland. Adams High School is deliberately planned to serve teacher education, as well as to become a comprehensive public high school eventually housing

2000 students. I should emphasize that Adams is joining Portland's thirteen other high schools as one of the system. It is unique, however, in its concept, and especially in its commitment to the education of educators.

We are calling Adams a "clinical school". The concept was created by a team of doctoral candidates at the Harvard Graduate School of Education, who developed a blueprint for a "clinical secondary school" while engaging in the supervision of student teachers in metropolitan Boston. The authors of the clinical school idea based their plan on the model of the teaching hospital. One of the originators of the idea spent a year observing the operation of a teaching hospital and studying its implications for the education of teachers. During the autumn of 1968, four members of the Harvard team joined the Portland staff to assume the responsibility of planning for the new school and to become its administrative leaders.

In drawing upon the teaching hospital as a model, the authors of the plan had several aims in mind:

> (1) to develop a more coherent and relevant model for pre-service and in-service teacher development, (2) to carry on educational research and training of researchers, (3) to re-define the role of teacher and to develop new educational roles at the sub-professional as well as professional levels. If this school succeeds we hope we will have created a new career line for people who are satisfied with neither the school systems nor schools of education as they now exist. Fundamental to our thinking is that the clinical school must be replicable. We would not undertake the venture unless we felt confident that a successful clinical school would be capable of making a significant impact on the way that school systems and schools of education currently operate.[1]

In the development of this plan for an experimental public high school the team asked the chief resident in medicine at the Massachusetts General Hospital: "What aspect of the teaching hospital make it a powerful environment in which to learn?" His answer was as follows:

> The thing about a teaching hospital is that one is surrounded by people who are functioning at all levels in all areas of medicine. This means all levels of students, as well as interns and residents. There are also visitors on the ward, some of whom are working in the laboratory on problems related to disease. In addition, we are increasingly involved with scrutiny of our practice of medicine from the sociological standpoint, asking questions about the total individual, after-care problems and the resources of the community.

We expect Adams to be characterized by an "inquiry environment" that will result in improved learning on the part of the young people attending the school, and we hope that it will have system- and nation-wide impact through its applied research and teacher development programs. In order to implement its teacher education program, the senior faculty of the school will hold joint university appointments, although the major share of their scholarly and teaching responsibilities will be fulfilled in the high school itself.

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[1] *The Clinical School*, a proposal prepared by the members of the Clinical School Collaborative, Cambridge, Massachusetts, 1967, p. 2.

The relationship to the university, as Fawcett and Corbally indicate, is especially vital to the education of educators. What this means in the clinical school is described in the prospectus as follows:

> The first important mechanism linking the school to a university or group of colleges is, of course, the university appointments of the core staff of clinical instructors. This in itself should mandate close contact between school and university, as should the presence in the school of student-teachers undergoing their training experience. But we envision a cooperative effort between school and university that would go considerably beyond the mere existence of a school-based teacher education program. We would hope that people from all parts of the university who have an interest in any aspect of secondary education would be brought into the school. This would include professors in the disciplines, who might be persuaded to work on the development of curriculum along with the clinical staff, teachers, trainees, and graduate students doing research in the behavioral or social sciences; or undergraduates who have not yet chosen careers and might want to try their hand at teaching. One objective of the clinical school would be to house a sufficiently varied program of intellectual activities (e.g., basic and applied research, and teacher development) over and above the basic work of teaching adolescents to attract the interest and commitment of a broad cross-section of the university community.
>
> In addition to our efforts to bring the university into the school, we would make a concerted effort to construct a school program which would open out to take full advantage of the resources of the university. Ideally, the school's students would have access to the university's libraries, museums, theatres, athletic facilities, special lectures: they would occasionally be able to sit in on classes, talk with college students, and the more advanced ones should be able to enroll in certain university courses. Our aim here would not be to simply skip over the traditional high school experience and hurtle everyone into a collegiate setting. Rather, we would hope to ease the transition between two worlds, to provide high schoolers with some sense of the freedom and stimulation that a good college can offer, and to expose students from a non-intellectual background to the environment of an intellectual community.[2]

The main objectives of the school are all basic to teacher education. Abler teachers will be developed when they experience opportunities to participate in the conduct of a school that cherishes inquiry as the foundation of its curriculum. Unquestionably the inertia that blocks change in today's schools is traceable in considerable measure to the conventional system of student teaching that perpetuates conventional classroom practice.

Research is a natural ally of teaching and in the teaching of teachers. If the development of researchers and the conduct of educational research is to take place in a high school, it ought to be aimed at the immediate problems of the school. The research problems should be those arising in the day-to-day operation of the school. It ought to be possible for the faculty to propose a novel approach or the trial of a new technique and to initiate it under favorable research conditions. Testing solutions to the real problems of the school is quite a different matter from that which results when a university researcher selects an isolated problem and looks for a site at which to make a study. The irrelevance of so much educational research derives precisely from its isolated and detached character.

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[2] *Ibid.*, pp. 6-7.

If a significant segment of the pre-service and in-service education of educators is to gravitate to the setting of a public school, some accommodation on the campus will, of course, be necessary. For one thing, the amount of time spent in college-based education courses will have to be reduced. The prospective teacher should be placed in a classroom at least by the sophomore year, perhaps as an aide to a teacher. For a sophomore and a junior the pre-service program could provide a full quarter in actual classroom experience. In the senior year two quarters of student teaching could be provided. This could then be capped by an in-service program for the full-time teacher and thus would provide for continuous education for two or three years after the initial employment.

As Fawcett and Corbally indicate, the university has serious reservations about the quality of much that is now contained in the pre-service program. To reduce and compress the on-campus program in order to allow more school-based experience seems a reasonable and feasible proposal. If certification standards stand in the way, this barrier can be cleared.

The Fawcett and Corbally paper gives attention to teaching quality both on the campus and in the public schools. In both places more intensive work needs to be done. Both the campus and the schools should survey the problem and follow through by developing an experimental in-service program for all who teach teachers and who teach pupils as well.

It is worthwhile to consider what could be accomplished by a genuine effort to find different ways for a university to function. Suppose the prospective teacher were prepared with special reference to demonstrable competencies instead of to credit hours and certification requirements? Perhaps this could help to open the way for some much-needed breakthroughs.

We must continue to push for better means of assessing the attainment of goals. This we intend to do in Adams High School. In the last analysis, teaching results have to be judged in the light of educational outcomes and products. The whole evaluative process must be shaped to give the teacher guidance for his own improvement over a period of time as he receives information about pupil learning and growth. When the appropriate data are available the teacher can be helped to plan instructional strategies. Thus the teacher can monitor the progress of students toward appropriate objectives. Until recently there were no practical tools available to provide an information support system for monitoring the effect of teaching. Equipped with the capabilities of an extensive and rapid information management system, the teacher and his associates can do intelligent instructional planning and can maintain a useful record of pupil advancement. These techniques seem to be as applicable to university teaching as to instruction in a public school.

This was not so in 1937 when Conant first became critical of the university system of teacher education. Today, with tools at hand which vastly extend our powers of assessment, and consequently of planning, the universities and the schools can and should seriously re-study the structure and function of their teaching, and particularly the teaching of teachers.

Unquestionably the schools and the universities have important work to do together. We have been remarkably inept at creating and maintaining a truly cooperative partnership. The time is at hand for a renewed effort toward this end.

CHAPTER 3

Emerging Challenges and Designs for the Preparation of Teachers

Part One

Self-Directed Change for Educators:

Experiments and Implications

Carl R. Rogers[*]

I have been deeply involved in several experiments in self-directed change in educational systems. In these experiments there has been much evidence of personal change, growth and change in classroom behavior on the part of teachers, and some change in the personal and behavioral development of administrators. There has been even more responsiveness to change on the part of students. It is these experiments which I wish to report in this paper. But first perhaps a bit of the background of my thinking and experience might be in order.

THE NEED FOR CHANGE

There may be some who would ask: What is the need for change in education at all? Isn't the need rather for greater stability and consistency in our educational systems? In my judgment, one cannot read of the tremendous student unrest whether in France, Berlin, Mexico, Berkeley, or Columbia—nor can one talk with students, teachers, or parents—without realizing the tremendous challenges which education is facing today and the fact that it is not meeting them very well. I see our whole educational system at a crisis point, a point of desperately important choice where we will either move forward or our educational system will essentially collapse.

We are faced with a great change in values and often with a loss of values in our young people—culminating in those who "drop out" of our culture and its value system. We are facing the tremendous racial tensions and problems of the minority groups as they try to find their way out of the ghettos—whether in non-violent or violent ways—with our educational system inevitably drawn into this struggle. We cannot avoid the incredible rapidity of change which outdates knowledge before it can be put to use. We cannot fail to see the tidal wave of desire for participation which sweeps almost all groups in most countries. Essentially, people are saying, especially to educators, "I want to *participate* in the decisions which affect me and my future." Can education come to grips with real problems of our society? As I have observed the rigidity, stuffiness, and bureaucratic mentality of many educators, I feel it is a real tossup as to whether education can meet these challenges, in spite of the many exciting small experiments which are going on.

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[*] *Resident Fellow, Center for Studies of the Person, LaJolla, California.* Has held professorships at the University of Wisconsin, Chicago, and Ohio State. Holds both the Scientific Contribution Award, and the Award of Professional Achievement given by the American Psychological Association. Author of *On Becoming a Person, Client-Centered Therapy*, and other books.

It is not that there has been a lack of plans for change in our educational systems. There have been many such plans—indeed a surplus. But *nearly always these have been attempts to bring change in from the outside and such efforts have been largely futile.* Recently I talked with a man who had, several years ago, developed a very fine program for training in citizenship in a whole group of high schools. He and his staff developed a carefully tested curriculum, they inaugurated training for teachers in how to teach this curriculum, and the teachers in the high schools were using it. It was an expensive and well thought through program. Recently he had occasion to talk to a large audience of high school teachers from this same system. He had the courage to test out what he feared was the truth. He asked how many in the audience were still using this citizenship curriculum. Not a single hand went up. I believe this is the state of many of the excellent programs which are brought into the schools from the outside.

AN INSTRUMENT FOR CHANGE

I believe, however, that we have an instrument for *self-directed* change which may introduce a new note and which may have a more lasting effect. Let me describe it briefly.

THE INTENSIVE GROUP EXPERIENCE

One of the most effective means yet discovered for facilitating constructive learning, growth, and change—in individuals or in the organizations they compose—is the intensive group experience. Known by a variety of names (encounter group, T-group, and sensitivity training are some), it has a common underlying theme and quality of experience. The intensive group or workshop or encounter group usually consists of ten to fifteen persons and a facilitator or leader. It is relatively unstructured, providing a climate of maximum freedom for personal expression, exploration of feelings, and interpersonal communication. Emphasis is on the interactions among the group members in an atmosphere which encourages each to drop his defenses and facades and thus enables him to relate directly and openly to other members of the group—the "basic encounter." Individuals come to know themselves and each other more fully than is possible in the usual social or working relationships; the climate of openness, of risk taking, and honesty generates trust which enables the person to recognize and change self-defeating attitudes, to test out and adopt more innovative and constructive behaviors, and subsequently to relate more adequately and effectively to others in the everyday life situation.

Since the mid-1940's such encounter groups have been used extensively with industrial executives, with government administrators, with professional groups, and with laymen—groups considered to be normal and well functioning. Groups have been conducted under a wide variety of auspices, among which the National Training Laboratory is perhaps the best known. On the West Coast, the School of Business Administration at the University of California at Los Angeles has been noted for its innovating use of such groups. My colleagues and I, formerly associated with WBSI but now organized as the Center for Studies of the Person, have led a very wide variety of such encounter groups.

Generally speaking, a major aim of these intensive group experiences is to improve the learnings and abilities of the participants in such areas as leadership and interpersonal communication. Another aim is to bring about change in the organizational climates and structures in which the members work. These group experiences are most satisfactorily conducted as an intensive residential experience in which the participants live and meet together for periods ranging from three days to two or three weeks.

During recent years, educators have begun to make use of the intensive group experience, though only to a realtively small extent. In the educational setting the major aims have been to release the capacity of the participants for better educational leadership, and to improve interpersonal relationships between administrators and faculty, faculty and students. Another aim has been to foster learning by the whole person—student, teacher, or administrator.

Although these several uses in educational settings have had satisfying and promising results, there has been almost no attempt to utilize the encounter group experience in a coherent approach to change in a total educational system. Hence, an all too common consequence has been that a single teacher or a faculty member returns from such an experience ready to behave in new and changing ways only to discover that his attitudes are not welcome in a "stable and well-regulated" educational organization. Two alternatives are open: he can either return disappointedly to his previous conventional behavior or; he can become a puzzling and disruptive influence in his institution, neither understood nor approved. In some instances he has lost either his job or his promotion through his attempt to utilize new methods in the school.

A PLAN FOR ENCOUNTER GROUPS IN A WHOLE SYSTEM

Several years ago it began to seem quite clear to me that this new tool for change could not be used in the most effective manner in education unless the whole system was moving toward changingness in a way which accommodates change in its own personnel and in its own units. Industry has already learned this. It is this principle of *opening up the possibilities for change in a whole educational system* during a relatively short period of time which became the essence of a persistent dream.

You may well ask what outcomes might we expect of such an experience where the trustee, the president, the dean, the faculty member, the principal, the supervisor, and the administrative specialist attend such a group. It has been our experience that some of the outcomes can be described in a somewhat schematic form as in the following statements:

The Administrator:

- Will be less protective of his own constructs and beliefs, and hence can listen more accurately to other administrators and to faculty members;
- Will find it easier and less threatening to accept innovative ideas;
- Will have less need for the protection of bureaucratic rules, and hence will decide issues more on the basis of merit;
- Will communicate more clearly to superiors, peers, and subordinates, because his communications will be more oriented toward an openly declared purpose, and less toward covert self-protection;
- Will be more person-oriented and democratic in staff or faculty meetings; hence
- Will draw more widely and deeply on the resource potential of his faculty and staff;
- Will be more likely to face and openly confront personal emotional frictions which develop between himself and his colleagues, rather than burying the conflict under new "regulations" or avoiding it in other ways;
- Will be more able to accept feedback from his staff, both positive and negative, and to use it as constructive insight into himself and his behavior;
- Will be more able to communicate realistically with his board of trustees, and thus possibly lay the groundwork for altering the organizational *structure* of the educational system (this will be especially true if the trustees themselves have been involved in an intensive group experience).

The Teacher:

- Will show many of the characteristic changes listed for the administrator, and in addition
- Will be more able to listen to students, especially to the feelings of students;
- Will be able better to accept the innovative, challenging, "troublesome," creative ideas which emerge in students, rather than reacting to these threats by insisting on conformity;
- Will tend to pay as much attention to his relationship with his students, as to the content material of the course;
- Will be more likely to work out interpersonal frictions and problems *with* students, rather than dealing with such issues in a disciplinary or punitive manner;
- Will develop a more equalitarian atmosphere in the classroom, conducive to spontaneity, to creative thinking, to independent and self-directed work.

PUTTING THE PLAN INTO OPERATION

Thus far I have been rather descriptive and abstract. Now I want to discuss frankly and realistically our recent practical experiences in trying to make this dream a reality. We have made many mistakes but we have had more exciting experiences than we would have thought possible and have learned enormously from the teachers, other educators and students with whom we have worked.

We finally discovered a foundation willing to back such a venturesome idea (after being turned down twice by the Office of Education and by a number of prominent foundations) and were ready to seek a target system. Our only criterion was that we wanted an educational system where the top leaders were in favor of such an innovative program of change. Though several systems eagerly sought to make themselves the target, we were finally persuaded—somewhat to my surprise—to work with the total educational system of the Order of the Immaculate Heart in Los Angeles. This was particularly intriguing because the system included a college which has a heavy emphasis on teacher training, eight high schools, and fifty elementary schools. Thus, we had access to teachers and administrators at every level—college faculty and administrators, teachers and principals of the high schools and elementary schools, teachers-in-training, and students.

THE FIRST STEPS

Our first step was to set up a joint planning group since we wanted the system to participate in every decision which was made. This group planned and carried through twenty-three voluntary encounter groups in the first five months of our experiment. Each of these groups met for two separated weekends, having thus almost five intensive days together with several weeks dividing the two weekends. In these twenty-three workshops we had 400 teachers and administrators from the college, high school, and elementary school level. We had approximately 170 college students and 40 high school student leaders.

It would be impossible to discuss all that happened in these encounter groups. One generalization which might be made is that we found the degree of resistance and non-acceptance of the experience almost directly correlated with status. It seems that the higher the status of the individual, the more fearful he is of an experience in which he might reveal himself personally to his colleagues or find it necessary to work out some of his interpersonal relationships with them. Thus, probably the administrators, particularly of the college, were most resistant; the college faculty would be next on the list, then the high school principals and teachers, then the elementary school principals and teachers, while the college students and certainly the high school students were very open to this opportunity for experiencing interpersonal relationships on a more open and intimate basis. It may have been unfortunate in some ways that we started first with a college faculty and administrative workshop, not only because this was the most resistant group but because being new to this particular situation we probably made more mistakes with them than with those that followed. Nevertheless, even here some of the college faculty gained a great deal from the experience and, as will be evident in what follows, it laid the groundwork for many exciting later experiences.

THE HIGH SCHOOL GROUPS—AN EXAMPLE

In order to give some feeling for the kind of events which occurred, I would like to try to relate some of the things that happened in three weekends with approximately 25 high school faculty members and 40 student leaders from a girls' high school. As always, the groups were voluntary but they included most of the faculty of this high school and almost all of the girls who had been elected to some office in the various student organizations. I was personally very close to these groups so I think I can make the experience more real and vivid for you for that reason.

We had assumed in the initial planning for the encounter groups that faculty members and students would be mingled in each group. We found, however, when it came to the specific planning the faculty were unwilling. They felt they had separate problems which the students could not understand and they preferred to meet separately. Consequently, there were two groups of high school faculty and administrators and three groups of students. I felt that I had a liberal education in leading one of the student groups, together with a woman co-facilitator. At first it was almost all chatter-chatter, often with several members of the group speaking at once. It soon became clear that all feelings were regarded as "weird." For a person to express any deep or troubling feeling was "*really* weird." To me one of the most interesting things that emerged was that they had a real fear of being heard by anyone—not only by adults but even by their peers. One girl explained how comforting it was when a number of people were all speaking at once because she knew that she would not really be heard. But as the group became more comfortable with itself and silences occurred it seemed a very fearful thing to break the silence because she knew that whatever she said would really be *heard* by everyone there.

During the early hours of the group the chatter would only occasionally be interrupted by someone who expressed a genuine or deep feeling, but the talk would immediately revert to the chatter level. Gradually, however, the conversation grew more and more personal and meaningful. They talked about their feelings regarding faculty and specific faculty members. They talked about problems they were having in their family, with their parents, or with their peers. They discussed the difficulties in making career choices. They dealt very openly with the difficulties in the interpersonal relationships between the winner and loser in an election, both of whom were present in the group. They discussed these things in a way they had never discussed them previously. Since a number of the teachers were nuns, they discussed the fact that it was impossible to be *real* with a Sister. You couldn't really let a nun know what you felt or deeply thought. They discussed with much laughter the mythology they had absorbed about nuns. It was clear that they regarded them as a breed apart—an entirely different kind of person from the ordinary mortal. This was the reason they could not possibly enter into real communication with one of them. At this point, my co-facilitator felt that she should speak up: "I think that perhaps I should tell you I have been a nun." Jaws dropped all around the circle. "How long?" "Fourteen years," she replied. Thus it was they discovered that they had been real in talking with a person who had been a nun, and that she had heard their feelings as a *person,* not as a member of a special breed.

Although the problems they voiced and the feelings they expressed were not unusually deep and consisted mostly of the kinds of problems which trouble all adolescents, it was clear from their conversation and from the letters we received later that this experience of real sharing of feelings was a totally new one for them.

Meanwhile, the teachers were making the same kind of progress—becoming more personal with each other, openly confronting some of the interpersonal difficulties between them and becoming real persons to each other rather than individuals who played roles. By the time of the second weekend sessions, faculty and administrators were quite willing—though somewhat apprehensive—to be mingled with the students in the groups. It was primarily the students who took the initiative in expressing their personal reactions to the faculty but soon this was a two-way process. In the group in which I participated the students gave the principal and the teachers very honest feedback. They told the principal how much they liked her in many ways but how frustrated and untrusted they felt when she behaved in certain ways. She really listened. Then other faculty members joined in, expressing some of their own difficulties in interpersonal relationships between themselves and with the principal.

There was one particularly memorable learning for me in this group. Faculty members began discussing the difficulties in which they were involved in a faculty organization—the misunderstandings, the hurt feelings, the tangled interpersonal relationships which were making it impossible to be effective as an organization. I became increasingly troubled because I felt the students were being left out and that a problem was being discussed which was of no interest to them. Suddenly one of the girls broke into tears. It turned out that she was facing almost identical problems in the student organization which she headed. She had no idea what to do about these problems. She had never discussed them with anyone. She was greatly moved to know that faculty members faced the same kinds of problems and that perhaps she could talk about them here. What I re-learned from this experience is that when members of a group speak personally and deeply about their concerns, many of their concerns have significance for every other member of the group because the deeper problems are ones which we have all faced in one way or another.

In the third weekend meeting of this group, there was really no distinction between faculty and students. They were simply talking together as persons. The aimless chatter had completely disappeared. They discussed with real feelings the things they wanted for themselves as individuals and the things they wanted for the school. It was a very profitable weekend in every way.

THE PERSONAL QUALITY OF THE GROUP EXPERIENCE

Perhaps one incident in which I was directly involved will indicate something of the quality of experience which goes on in these groups. Sue was a rather quiet girl but obviously a very sincere and serious one. Rather early in the third weekend she had expressed some of the difficult times she was going through. She had found herself questioning some aspects of her faith, questioning some of her values, and she felt very uncertain as to the answers to these questions and also some despair. She knew that the answers must come from within herself but they did not seem to be coming and this frightened her. At another point she mentioned how frequently other students came to her with their problems. She felt that she was quite available to them and that she found satisfaction when she could be of help to another.

The next day—after there had been some very moving feelings expressed—the group paused for quite a time in silence. Sue finally broke the silence with some highly intellectual questions which were perfectly reasonable questions but somehow they did not seem to be appropriate to what was going on. I felt at some intuitive level that she was not saying what she wanted to say but she gave no clue as what her real message might be. I found myself wanting to go over and sit next to her but it seemed like a "crazy" impulse since she was not in any obvious way asking for help. The impulse was so strong that I took the risk, crossed the room and asked if I could sit next to her, consciously expecting that I would be rebuffed. She made room for me and as soon as I sat down she put her head on my shoulder and burst into sobs. I asked her, "How long have you been crying?" She answered, "I haven't been crying." I said, "No, I mean how long have you been crying inside?" She said, "Eight months." I held her until the sobbing gradually subsided somewhat. Little by little she was able to tell what was troubling her. She believed that she could help others but felt that no one loved her enough to help *her*. I suggested that she turn around and look at the group and she would see a great deal of love and caring on the faces of those around her. Then one of the sisters helped her by telling how she had lived through the same kind of period in her own life—doubt and despair and feeling unloved. Others also helped. Sue then revealed the fact that her parents were separated, that she had greatly missed her father, and that to have a man show a caring interest in her meant a very great deal. Evidently, intuitively, I had sensed this but I have no idea how this intuition came about. The risk I took was the same kind that other members of the group took at other times.

In the letters I have had from Sue since, it is very clear that the experience with me and the love and caring of the group have helped her over her despair. She still has many questions about which she is uncertain but the hopelessness and the feeling of being unloved have disappeared.

WHAT, IF ANY, CHANGES OCCUR?

Perhaps these descriptions give some idea as to what occurs in the encounter groups themselves but they do not in any way answer the question as to what happens to these people—administrators, faculty, and students—when they go back to their regular school environment. Our experiences of the past few years have, I believe, shown us that the first and perhaps the deepest changes are likely to occur in the individual's close relationships—with family, with spouse, with close friends. These relationships change very definitely in a great many instances. The next area of change is in whatever area the individual feels potent. When a teacher closes the classroom door, he or she feels potent in relation to the students and feels that it is possible to change the relationship with the students. This is something that frequently occurs. The next area of change is with one's peers or colleagues. Here change is probably slower and less frequent. There is more risk in changing relationships with the equals with whom you work every day. Finally, there is the area of structural change in the organization and in the climate of the organization. The climate may change somewhat but changes in organizational structure to fit that climate are slow in coming and we need to learn much more about how to bring that about.

These are generalizations. Let me try to bring them to life a bit by quoting from some of the letters we have received from faculty and students.

AN EXAMPLE FROM A PRINCIPAL

An elementary school principal, whom I shall call Margaret, wrote:

> It has taken me a while to be able to respond in writing to our sensitivity workshop. When I returned to school that following morning, everyone really seemed 'shot'—yet I wonder if it wasn't one of our best teaching days.
>
> Teachers seemed so aware of their children as people.
> I think too that socially the faculty has become much more aware of each other. Everyone seems to be trying to get to know each other more, not as fellow workers but as human beings.
>
> Oh, another reaction just zoomed up. I remember that Monday morning—I must have had twenty-five different feelings in an hour but most of all I was *scared*—for the first time I was going to school as Margaret the person instead of Margaret the principal. It was a *freeing* feeling too! And I survived!
>
> The strength that you all gave me is still very vivid in my feelings and again I want to say thank you and I am also trying to 'soak up' the idea that Margaret *is* a loveable and loving person.

EXAMPLES FROM HIGH SCHOOL GIRLS

Since I have paid particular attention to the high school groups of faculty and students, I should like to quote from a few of the many reactions we have had from the high school girls who participated. One can see both indications of personal change and change in teacher-student relationships. One girl has written:

> I should state clearly right now that the workshop was one of the most important and beautiful experiences of my (relatively short) lifetime. I find personally that I am very much changed in my attitude toward teachers, fellow students, and just plain everybody. I am far more open now (or at least I try very hard to be) than I have ever been.

Particular attention might be paid to this next quotation. It sounds as though a student may have been rescued by the group experience from really serious alienation and possible psychological disturbance:

> The workshop gave me a deeper insight into the art of listening . . . already I have found a value in this 'art' because many new friendships have opened up to me and old ones have become stronger and more important than ever. For quite a while I have been feeling very distant from people to the point where I was actually very worried about myself. Ever since the workshop, however, this feeling has been abolished and again I feel a real union between people and myself.

The next two brief quotes focus on the general climate of the school.

> Faculty-student relationships have absolutely *zoomed* . . . I feel that already there is a sense of cooperation circulating throughout the school. This has been made possible by the attitudes of our own student council.

> I haven't noticed any change in the teaching methods in my classes except my religion class is remarkably different from previous years. We discuss subjects of interest freely. We are encouraged to question, to challenge, and to say exactly what we feel without worrying about grades . . .

SOME OBSERVATIONS

Since we are more likely to receive letters from those for whom it was a positive experience than from those who had a neutral or negative experience, the quotations I have just given should be considered an indication of what can be achieved in such encounter groups rather than an indication of what happens to every individual. We have also gathered data from all of the participants and when these are analyzed we will be able to describe more adequately the varying degrees of outcome. The fact that the attitudes were in general favorable may be indicated by the events of the second half of the school year which I would like to describe.

TWO UNEXPECTED RESULTS

We had two surprises in store for us during the second half of the year in working with the Immaculate Heart system. The first surprise was the rapidity with which teachers introduced highly individual and innovative changes into their classroom methods. Somehow we had supposed that this would come much more slowly.

The second surprise was even more encouraging. We began to receive so many invitations to conduct groups that we soon found that all of our work during the second half of the year was based entirely upon such invitations. In other words, we worked with groups who wanted us to help them communicate better and more deeply. The diversity of these groups was astonishing and I can only mention a few.

CLASSROOM CHANGES

Let me document first some of the kinds of changes which took place in the classroom. I will give one sample from an elementary teacher and one from a college teacher. The elementary teacher wrote:

> You asked what happened to me . . . pure and simple, someone got to me—the inside 'new' me . . . I listened and I heard, have heard and have been hearing things I have never listened to before . . . and love it. Results? All I know is it's fun. I have *listened* to my students. I asked them if in the past I had turned any off or not listened. The biggest *thugs* all raised their hands. Also—they are the most sensitive . . . I have had the busiest, most arousing, sapping, exciting, fun-filled, fulfilling, and happiest months since I started teaching and it hasn't stopped yet.

This teacher's observation about the problem students, the "thugs" as she calls them, is particularly interesting. It is often true that youngsters who are creating problems are more sensitive to interpersonal relationships than others. Her comment also raises the interesting question of cause and effect. Were these children really "thugs" and consequently she did not feel they were worth listening to, or did they *become* "thugs" because they were not heard? This question opens up a whole new perspective of thought on so-called "problem youngsters" in the classroom. Her statement also suggests how involved both students and teachers can become in learning when communication is *real* between teachers and students.

A faculty member at the college decided, after being in an encounter group, to conduct her courses in a completely different fashion. She sends with some pleasure the announcement she gave out in advance to her class and three full pages of student reactions to the experience. This is obviously much too long to quote but a couple of paragraphs from her announcement to the students give the spirit in which she is conducting the course:

> My own personal goal in this course is to permit you all possible freedom in pursuing the study of—(hers was a high level language course requiring a good deal of reading). I in no way consider you as empty recipients into which I will pour a stream of facts about this course. On the contrary, I hope to discover with you insights which will be most meaningful to all of us in individual ways because education which does not dynamically involve the whole person does not involve real learning.
>
> You are the best critic of any work you read because only you can make the important and relevant applications to yourself as a person . . . some of you may be frightened by this type of course. Please feel free to express this or any other reaction you may have en route. I myself am apprehensive on many scores but I feel the risk is worth taking. How about you?

Here is one student reaction to this course, typical of many:

> I thought that the class was excellent and I learned a great deal. My first impression of the structure of the class was 'help!' It was a bit awesome and frightening to be left on my own . . . structurally I felt more direction should have been given regarding whom and what should be read first. I did find difficulty in balancing my two experimental classes with my two other classes taught in a more traditional mode. When you have papers and due dates it is easy to let the unstructured classwork slide . . . other than these few criticisms I feel that the class as an experiment was a success. I hope you have the courage to do it again for it is always a risk to trust people. I am so glad that you did.

GROUPS HELD BY INVITATION

In some instances a departmental faculty asked if a facilitator might meet with their faculty group in order to help them improve their interpersonal relationships and their general functioning. In other instances a department faculty wished to hold an encounter group type of session with all of the departmental faculty and all of the students majoring in that department. Then there were a number of instances in which a given faculty member wished us to meet with his or her class in order to help improve the climate of the class and the learning potentialities in the situation. In all of these things we felt that we had the opportunity for the very best of in-service and pre-service training. Sometimes these groups were quite brief—two to seven hours in length—and we were not at all sure that much could be accomplished in that time. However, we came to respect the fact that when people are motivated and take the initiative in asking for a group, many barriers can be cleared away even in a very short period of time. Let me give two examples of what happened when a facilitator met with a faculty member and a class.

THE FACILITATION OF ENCOUNTER BETWEEN TEACHER AND STUDENTS

A professor of education wanted us to meet with her and the teachers-in-training who were in her course. During this time she was able to reveal herself much more fully to the group than she ever had done before. This opened up communication among the students and between the students and the faculty member. The climate of the class showed definite positive change after that session.

Another rather striking instance was that of a faculty member who had just returned to the college from additional graduate training. She felt frightened and inadequate as a teacher but the only way she could show this was by intimidating and ridiculing her students for their mistakes. She was quite sharply aware that this was not the climate she wished and yet she felt powerless to change it. In one extended session, with a facilitator present, she found that she was able to reveal her fears and inadequacies to the group and received a very positive response from her students who were mostly teachers-in-training. Their attitude was: "This is just the way we feel when we look forward to the possibility of being teachers ourselves and we have been told that the first thing to do is get and keep the upper hand in our classes." Once they could see her as a frightened person their perception of her was changed. The experience also gave them the courage to confront her honestly when they were unhappy about her behavior in the course. It became a group of persons working together rather than a faculty member who was trying to remain aloof out of fear.

THE COLLEGE PAPER

The student newspaper at the college tends to be run by a rather rebellious and activist group of students. They were quite skeptical about trying an encounter group but found themselves very enthusiastic about the experience. It also helped them to see that deeper communication provided another way of bringing about change—an alternative to criticizing and fighting with authority figures.

ADMINISTRATORS TAKE THE RISK

The administrative council of the college had felt quite threatened by the possibility of an encounter group even though the president was in favor of it. Some of them learned about the "task-oriented groups" which were being conducted in industry to improve administrative functioning and decided they would like to try this. Consequently, they invited Sheldon Davis, from TRW Systems, who has done a great deal of this work, and myself, to lead them in a task-oriented group. This meant that we interviewed each member of the group individually, the main question being, "What are the things which keep this college from functioning most effectively or from being the college you would like it to be?" The answers fell into various clusters or themes and these were listed on the board as the agenda for our group sessions. Some of the agenda items were simply names, where people felt that one person or another was really blocking the effectiveness of the college. Some of the items concerned misunderstandings and differences and failures of communication about administrative matters. The group went straight through the agenda, dealing openly with the people involved though this sometimes involved painful confrontations. However, the caring of the group, and the desire of the members not to hurt, was also evident. As a group, they came to an astonishing amount of agreement on many of the agenda items. A list of action steps was proposed—steps to be taken in the near future. I am looking forward to the next meeting of this group which will occur soon.

A BLACK-WHITE GROUP

One of the most interesting and valuable invitations was received from a group of Negro girls. They decided that the black point of view was not sufficiently represented in the college and they consequently organized a seminar. They invited white students to join, but the blacks were definitely in charge. They invited one of our staff to come and to sit on the sidelines during the first three meetings. He was to serve as facilitator only if asked. This worked out so well that they invited him to continue through all their meetings. These were very exciting and moving sessions. At first the Negro girls expressed a great deal of bitterness and the feeling that their attitudes were not at all understood by any of the white community. Gradually, however, communication and real encounter began to take place. Probably the white students learned the most, but the black students learned that whites also have their hurts and that they have been damaged in the growing up process too. Perhaps one of the mutual learnings was that there is often much hurt in simply being alive in an imperfect world and that while the blacks may have been more deeply hurt, others have also been hurt. Another real learning by the Negroes was that there were those who truly wanted to "level" with them and vice versa, so that both black students and white students were telling it the way it was in them. The seminar seemed to be a small symbol of what is so deeply needed these days when almost all communications has been cut off between blacks and whites.

Though we received and responded to many more invitations than have been mentioned here, this discussion may give some hint of the nature and quality of these experiences.

AN ENCOUNTER GROUP PROGRAM FOR THE LEADERS OF THE CLAREMONT COLLEGES

With some help from the Danforth Foundation, a project was developed by the six presidents of the Claremont Colleges in consultation with me. They decided that there would be five representatives from each college—a trustee, the president, the dean of the faculty, the dean of students, and a leading faculty member. Actually, the trustees were rarely able to participate because of other commitments, so the actual group was composed of about 25 people. The colleges did their best to involve the persons mentioned though sometimes substitutions had to be made. Dr. Richard Farson and I led the two groups, both in general sessions together and in two weekends, as well as in some long evening sessions in between the two weekends. This was a very difficult group with which to work, primarily because of the status and age of the members. Five of the 25 people came out of the experience with mildly negative reactions but the great bulk of the group had an experience ranging from neutral to very good. As one president said, "This is the best thing that has happened to the Claremont Colleges in twenty years." The last session was a task-oriented session in which they brainstormed at least a hundred positive actions which might be taken to improve the relationships among the Claremont Colleges and the situation in those colleges. Among other things, most of the group were in favor of extending and expanding the program the following year, though funds for this are difficult to find. I think most were agreed that the program would have been more profitable had student representatives also been included. A number of people have written to state that there has been a decidedly positive change in the atmosphere of cooperation and communication between the colleges because of the encounter groups.

I have included a brief discussion of this program largely to indicate that the encounter group has possibilities for change not only in a womens' college and schools in which the majority of teachers are women but also in a college situation in which almost all of the participants are men.

ENCOUNTER GROUPS FOR JUNIOR COLLEGES

At the instigation of some of the staff members of the College of San Mateo, approximately 130 administrators, faculty, and students from a dozen junior colleges were assembled for a weekend workshop. Since some of the people felt somewhat "pushed" into these groups, the experience of the various groups ranged from only very modestly satisfactory to groups which had a very involving learning experience—in which they came to know their colleagues and their students far better than ever before. This one weekend is obviously only a beginning but plans are already being made for follow-up activities in some of the colleges. It also indicates the degree of acceptance of such an approach in that a dozen junior colleges were willing to send representatives, even though in some instances this was awkwardly and poorly done.

SOME LEARNINGS

In all this diversified experience with administrators, teachers, teachers-in-training, and students of all levels, we believe we have learned or re-learned a number of important things.

The first is that the person of the facilitator is extremely important to the group process. A facilitator seems to be most effective when he is able openly to be himself; is able to accept the group exactly where it is even though it may be highly defensive and rigid; who trusts the group process; who spontaneously uses different approaches as they seem natural to him in the situation; who is an empathic listener; who becomes a participant in the group when he feels like doing so, and who serves a facilitating function when that appears to be needed. On the other hand, when the facilitator is to any degree "phony" or ingenuine; when he has an unspoken goal for the group to reach; when he is over eager for progress; when he pushes or probes an individual; when he acts in terms of some formula rather than in terms of the immediate group situation; when he consciously uses a technique; when he is overly concerned with his own problems and takes more than his share of time with the group—any of these qualities can make him less than adequate as a facilitator.

In the second place we have learned, as I indicated earlier, that there is a distinct gradation of difficulty in initiating the process of encounter groups. Generally, the higher the status and the more the individual has to defend, then the more difficult it is for him to be open with his colleagues and subordinates. The lower the status, the easier it is for the individual to become thoroughly involved in being himself with the others in the group.

The third learning I have also mentioned earlier. The encounter group experience seems to effect its first and most easily noticeable change in the close personal relationships of the individual. Next is the change in those relationships where he feels himself to be powerful. The change is somewhat slower in relation to one's peer groups and change seems to come last in organizational structure and organizational procedures.

In the fourth place we have learned the importance of immediate and available follow-up help. Many people who have a splendid experience in the encounter group itself wish very much in the days and weeks which follow for someone with whom they could talk out certain of the things that are happening to them. This is why in the Immaculate Heart system we have already trained a score of facilitators from the system itself and plan to extend this further. In one way or another we wish to make a helping person available to each group and each member of the group very soon after any encounter experience.

Another learning, or re-learning, is the fact that *all significant learning is to some degree painful and involves turbulence within the individual and within the system.* Thus, some of the schools with which we have worked have been literally transformed while in other schools we have learned that the encounter group has led to a certain amount of turbulence and division—dividing members into those who favor more open communication and more innovative change and those who see all these elements as a troublesome or even destructive influence in the life of the school. Although this turbulence may have a positive effect in the long run, it tends to create difficult current problems for the administrator and the faculty.

Finally, we have come to recognize that we are not simply studying the impact of encounter groups on an educational system. A more truthful statement would be that we are studying the impact of a dedicated group of individuals—who are interested in persons, who want to communicate with persons, and who are interested in facilitating communication between persons—upon an educational system. Thus, where changes come about it may have been through the joint planning sessions, through the numerous individual contacts, through occasional talks to faculty and student groups, through correspondence with the members of our groups, through follow-up visits, and many other relationships as well as through the encounter groups themselves. In short, we have come to see that *encounter groups used solely as a "technique" could be as futile in an educational system as any other approach.*

We have also come to realize the "wisdom" of the group in initiating things for themselves in which they use facilitators in ways we would never have dreamed of in advance. These are some of our preliminary learnings.

SOME CONCLUDING REMARKS

Why am I so interested in promoting self-directed change in education?

- I have come to believe it is extremely urgent that changingness become the central element and aim of American education. I am not speaking of change which goes from a static *here* to a static *there,* but of *continuing* change, fluidity, adaptiveness—a continuing constructive turmoil if you will.
- I deeply believe in self-directed, self chosen change whether for the individual, the group, the organization, or the body politic. Hence

I am opposed to the idea of change being imposed on schools or their members.

- I have become more and more convinced that we have an effective instrument for *self-directed change*—in persons, in groups, and in organizations—and that this instrument works. We are currently carrying on empirical research to get the hard evidence but I think it is clearly evident that the Immaculate Heart system can never again be the same.
- I see the basic encounter group as a significant means of freeing an educational system so that it can become involved in a self-directed changingness, involved in a continuing *process* of alteration and revitalization of the organization and the persons who make up that organization.
- I have come to believe that *teaching,* as such, is largely useless and futile and yet it is the central focus of almost all educational effort. I believe it is *learning* and the *facilitation* of learning which should be our central focus and I believe the encounter group, when it permeates a whole educational system, discourages *teaching* and promotes vital, personal, human *facilitation of learning.*

I believe that institutions involved in the preparation of teachers especially need to utilize the encounter group approach if they are to turn out young teachers with the inner strength to be both personal with their students and innovative in their procedures. Some adaptation of the approach used with the Immaculate Heart College—with encounter groups reaching administrators, faculty, and teachers-in-training—would seem highly appropriate and feasible.

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Part Two
Role of the Instructional Materials Industry

JOHN F. VANCE*

I sometimes wonder if it is not simply the natural human characteristic of immodesty that leads each generation to believe its own particular moment in history to be *the* turning point. Perhaps it would be closer to the truth to say that it is primarily doubt about the outcome that makes every day's problems seem so awesome. I cannot remember many days in my own lifetime without some crisis threatening to become more serious

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**Group Vice President for School Publishing, McGraw-Hill Book Company, New York, N.Y.*

or frightful in its potential consequences than all that have come before. And yet, I would be among the last to disagree with the perceptive statement in the preceding paper by Carl Rogers:

> I see our whole educational system at a crisis point—a point of desperately important choice where we will either move forward or our educational system will essentially collapse.

The late 1960's will be remembered long in the history of education mainly because these are the years during which: (1) the education universe suddenly became generally aware of the tremendous importance of early childhood education; and (2) even more fundamental—the learners, the youth of the world, cried out as never before for *relevance* in what is taught and for involvement in the determination of social processes. This latter crisis has to do primarily, if not solely, with the fact that the cry has been heard and the education establishment which truly wants to respond, hasn't yet figured out exactly how to do so.

At the center of this crisis, and of the education universe, is the relationship of the learner with the teacher, the teacher with the learner, and the preparation of teachers for these relationships and their jobs. Dr. Rogers has addressed himself specifically to the exciting promise of group sensitivity training as a means of breaking down barriers between all members of the educational system. His paper constitutes a favorable presentation of *one* important technique for improving the environment in which education goes on and for helping to condition the participants to better fill their roles. Other papers in this report deal with additional approaches.

It is my own strong belief that much of our hope for the future lies in large scale application of instructional or educational technology and in tremendous growth and improvement in pre-service and in-service preparation in order to assure that the new technology is used effectively to facilitate learning.

In this paper any reference to either instructional or educational technology relates to a *process* and not to any hardware connotations. Two of my associates have defined these interchangeable terms as follows:

> Instructional technology is the process of applying the findings of behavorial science to the problems of instruction. This process manifests itself through the analysis of the relationship between subject matter content and student behavior both before and after instruction.[1]

In regard to what is being done at present to prepare teachers to use the new instructional technology, *Forbes* magazine had this to say in August, 1968:

> A problem and also an individual opportunity, is the scarcity of teachers familiar with this new technology. Only three teachers' colleges in the U.S. are actually training teachers in it, and Florida State, Arizona State and Catholic University are the only places where a Ph.D. is offered in education

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[1] Robert W. Locke and David Engler, McGraw-Hill Book Company, *Instructional Technology*, a statement prepared for the Commission on Instructional Technology.

> science. This degree involves work in teaching, systems engineering and behavioral psychology.

While it would be unfair to rest on this appraisal of the current status of teacher preparation for use of instructional technology, the fact remains that the vast majority of teachers are not ready to use it. We hear much of the promise of instructional technology but have yet to see these promises fulfilled.

Before getting into my practical exploration of the possible role of industry in providing for this need let me finish setting the stage by making a few observations about recent trends in the involvement of industry in education and about the recent record in the acceptance of innovative programs and methodology by the schools.

RECENT TRENDS IN THE INVOLVEMENT OF INDUSTRY IN INNOVATION IN EDUCATION

About the time when the fever that was attracting new industry to education was at its peak, Carroll Hanson, of the Seattle Public Schools, wrote:

> An educational-industrial complex is forming in America. It is formed of large corporations, including major publishers and electronics firms, and avant-garde educators. It could revolutionize the curriculum, personnel, administration and control of public school systems within the next 15 years . . . For a fee a corporation such as Litton Industries will take over the operation of a school system or a number of systems where efforts to consolidate have failed . . .[2]

Educators and, believe it or not, some of the corporations have had (quite properly) mixed feelings about such predictions as those offered by Mr. Hanson. The dedication and sense of mission of such men as Frank Keppel of General Learning Corporation are beyond reproach. Similarly noble are the purposes of most of those in the private sector who are especially concerned with the public enterprise which is involved in the education business. But the mere act of a board of education in turning over to private business the responsibility for managing its schools does not, in itself, guarantee better education or more education "bang for the buck". So all who are properly concerned will move slowly in the direction of which Mr. Hanson wrote, even though most will recognize that there are far too many situations in public education in which sounder business management and the application of systems analysis and improved technology could help a lot.

Some firms have entered into the business of selling management consultant services to education. Others operate Job Corps facilities and street academies. And there have been some discussions between school boards and corporations with regard to the possibility of having business take over the operation of a school or school district. In fact, there is a prominent educator in New York who insists that public education is so hamstrung that our only hope is for private business, foundations or whoever to establish competing school systems.

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[2] Carroll Hanson, "Giants in the Schoolhouse," *Phi Delta Kappan*, November, 1967.

But industry has not wrought a major overhaul of the educational system in the two years since the bountiful ESEA (Elementary and Secondary Education Act) windfall year of 1966. No responsible educators or businessmen really expected change to come over night, but things tightened up in 1967 and 1968 more than most of them expected. The pressures resulting from (1) the tightening of federal funds supporting education, (2) problems of teacher militancy and organization, and (3) the lack of adequate teacher preparation, have all contributed to the fact that changes aren't coming as rapidly as some of the more recent industrial arrivals on the scene had hoped. Just as federal support for public education has been restrained in 1968, so have the aspirations of some of the corporate "giants". For what has happened since Mr. Hanson's article was written is that industry's euphoria of 1966 has dissipated. In fact, there are numerous indications that industry has hedged some of its bets on acceptance of innovation by the schools. General Learning Corporation—certainly one of the more glamorous and most dramatic corporate arrivals on the scene in recent years—has undergone some basic changes and has become increasingly aware of its dependence on the success of its conventional educational publishing business (Silver-Burdette), government contracts or additional capitalization by its "parents".

Several examples can be cited which relate both to industry and to publicly supported innovative science programs. Xerox, through its recent decision to turn over its AAAS elementary science program to its newly acquired publishing subsidiary (Ginn), may be considered by some to have hedged its bets on the rate of curriculum reform if not, in fact, on the rate of technological revolution. The recent news that D. C. Heath will not publish the commercial version of the promising and well known S.C.I.S. program from the University of California is a similar example. Three recent decisions in my own firm not to pursue either one of two other elementary and junior high school inductive science programs and probably not to pursue a third, are further evidence of what Carl Rogers has referred to in his paper as the disappointing "state of many of the excellent programs which are brought into the schools from the outside". The present state of all of these innovative elementary and junior high school science programs is similar. Each is accepted with considerable enthusiasm and success by a limited number of users, many of whom pioneered with the experimental use of prototype materials. Each has found difficulty in satisfying the need for preparation of teachers beyond the initial core of users to be a serious deterrent to widespread use.

During the past couple of years, little has happened to cause anyone to doubt the continuing long term likelihood of increased federal support of and involvement in public education. The effective efforts of Congressman Mills in forcing a reduction in federal expenditures and the necessary continuation of the tragic blood and dollar drain in Viet Nam have slowed things down a bit. However, there cannot be many who doubt that there will be massive federal support in the next few decades for those efforts which promise, or even offer hope, that the growing crisis in public education will be eased. There are some who feel that Richard Nixon's election to the Presidency will cause a reversal of the trend, but it is doubtful that he could significantly alter the trend if he wanted to. Shifting control of spending from federal to state agencies may make things even tougher for the cities for a while because of the rural control of many state legislatures, but the medium-range trend is clearly toward more federal support for public education. Efforts which involve technological change will continue to be among those which will attract federal support. To be in keeping with the times, all of these efforts will continue to be labeled as "innovations". Innovative or not, *it is difficult to imagine a change taking place in the classroom without an accompanying change in the role and actions of the teacher.* And this concept, of course, is one of several factors that point to the importance of this conference and of the present report.

Thus far, I have attempted to make and explain briefly several important observations. Big business was attracted to education in a big way in 1966. In the sobering years of 1967 and 1968 big business learned that changes in education take time. In 1967 and 1968 educators, curriculum reformers and those instructional materials producers who had been around for some time (not really very big business) became more aware of what they really knew all along: *dramatic change in education will not occur until teachers and administrators have been prepared for dramatic change.*

It is not my place as a representative of industry to survey all of the "emerging challenges and designs" for the pre-service and in-service preparation of teachers. What I hope to do is to provide a practical survey of the ways in which those of us in the instructional materials segment of the education industry may be able to help. I use the word "practical" because it is important to remember the restricting but self-sustaining limits within which the firms which comprise this industry may operate. They are in business to earn a profit. This means that the programs to which they commit themselves must, in net at least, be viable. I may seem to some—especially to some in industry—to take a conservative position. But in being "practical", I wish to write about *industry's role in terms of what it could be doing better now* — not 15 or 20 years in the future. Today's crisis in education cannot wait 15 or 20 years for substantial progress to be made.

CATEGORIES OF TEACHER TRAINING ACTIVITY

Theoretically, at least, there is room for the instructional materials industry to involve itself in the following categories of teacher training activity:

1. Operation of teacher training "schools" either in competition with, or as an extension of, already existing teacher training institutions (the "establishment");
2. Provision of consultant services; and
3. Publication of materials for:
    a. undergraduate training of prospective teachers, and
    b. pre-service and in-service training in methodology, in use of materials, and in special-purpose programs.

Of course those to be reached under categories 2 and 3 should not necessarily be restricted to classroom teachers. It may well be that administrators, board members, teacher's aides, supervisors and even parents could be reached beneficially with either consultant services or materials. Let us now explore each of these three areas more fully.

OPERATION OF TEACHER TRAINING SCHOOLS

Having shocked many of my readers by including this category, let me hasten to say that I take a very dim view of proposals in this direction. This category is listed because: (1) there are those in industry and in education who have seriously considered proposals to do just this; and (2) because there are a couple of related points worth making.

My dim view is based primarily on the position that there would be appalling waste in anything that would, in large part, be duplicating even part of a system that already exists. If the teacher training system is not what it should be, it should be made to bend—to improve. There is an arrogance in the assumption that private industry can do the job better—which, if put to the test on a large scale, may prove to be self defeating. This is not to suggest that the institutional teacher training establishment has a monopoly on the talents that can be brought to bear. It is rather that I believe that industry can make a greater contribution by using its skills and resources to make the "establishment" better than by presuming to compete with it.

My own company has joined a relatively small but energetic and innovative teacher training institution in the midwest in a program, now two years old, through which a variety of innovative but practical teacher training courses are offered. Our guaranty against financial loss has made it possible for the college to try out some relatively far out ideas. The areas in which innovative courses are offered are of some interest to our company but, at the same time, the college is careful not to prostitute itself by offering any courses that might be more of commercial value to us than of genuine educational value to the teachers who participate. One of the hypotheses we have tested in these first two years is that innovative, extremely practical, continuing education courses for teachers can be sold on a break-even or profitable basis. In fact, the tuition fee for these courses has been set at a level calculated to break even at something less than course capacity and the program has generated a very modest profit for the college in each of the first two years. This experience could suggest to our company, and to others, that we should go into teacher training for a profit, but I don't think that this is the proper conclusion. What it should suggest is that through more sophisticated management innovative and practical continuing training programs in areas of great need can be operated by teacher training institutions on a sounder economic basis than has been the case heretofore. Programs offered for businessmen by the graduate schools of business at Columbia, Harvard and others, are models on which self-sustaining programs for continuing training of teachers might be based. If such practical programs can be operated on a break-even or profit basis, so much the better. This should only lead to more and better innovations and techniques and to the betterment of the institutions.

Generally speaking the skills and resources of the instructional materials segment of industry are such that we can look for a greater contribution from member firms in the area of consultant services and materials.

PROVISION OF CONSULTANT SERVICES

There are two principal categories of consultant services to education that industry can provide. One of these—the traditional one—is consultant service to facilitate the implementation and continued use of materials produced and sold by the firm providing the consultant services. The cost of such services is one of the costs of publishing the materials to which they are related and is recovered from their sale. The other category is all of those services which are not directly related to materials sold by the firm offering the services. In such cases, as with the "management consultant firms", the consultant services are expected to generate a profit in their own right. Several firms have been established within the last two years to go into the business of selling consultant services to education for a profit.

Materials-oriented consultant services, although not new in concept, continue to offer one of the most valuable means through which producers of instructional materials can make a useful contribution. The consultants providing these services are almost invariably experienced teachers who are thoroughly familiar with the use of the materials to which their services relate. As such, they are usually better qualified than anyone else available to help teachers—especially those to whom the materials are new—learn how to use them.

In the last very few years, as systems of instructional materials have become more complex, it has become more difficult and more important to establish a limit to the role of the consultant in the implementation of innovative programs. For example, our own science consultants, in working with teachers implementing the use of Elementary Science Study (ESS) or the Secondary School Science Project (SSSP), tend to be asked more questions relating to the role of the teacher in a self-instructional situation than to the materials themselves. This is close to the heart of the reason for disappointment in the rate of acceptance of innovative elementary science programs. The business that a publisher can hope to do with a new program can be sufficient to cover the cost of showing teachers how to use the component materials, but it can never cover the cost of teaching the teacher to fill a new and different role in the classroom. Despite limitations of this sort, materials-oriented consultant services meet a very real need and can be expected to continue to do so for years to come.

The other area—consultant services for profit and not related to specific materials or programs—is newer and is also promising. Such services can be a "good buy" for the school system when there is someone outside the system with greater experience and wisdom in an area of importance who is willing to share his experience and impart his wisdom for a fair price. Distinguishing between good and bad buys and assuring utilization of what is bought will not be easy for school administrators. Dr. Rogers offers a good example of this in his paper when he says, in regard to the individual subject of sensitivity training, that "an all too common consequence has been that a teacher or faculty member returns from such an experience ready to behave in new and changing ways only to discover that his attitudes are not welcome . . ." But whether in architecture, school business management, teacher attitudes, or what have you, there are certainly many areas in which schools will find the cost of competent and carefully selected outside help a good investment.

I hope it is not stretching a point too much to suggest that some of the most important of these "consultant services" should be "purchased" from leading teacher training institutions. It is a favorite notion of mine—though certainly not uniquely my own—that one of the most useful opportunities facing leading teacher training institutions is that of establishing institutes in which the teachers of teachers can be trained to go back to their own school systems to conduct in-service and pre-service training programs. Some of this is being done already, but there is a need for much, much more. Pre-service and in-service training is conducted on an extremely limited scale when compared with what is needed. Moreover, it is difficult to imagine that improvement will come rapidly in this area unless teacher training institutions themselves take a more leading role.

PUBLICATION OF MATERIALS FOR TEACHER TRAINING

Materials for Training Undergraduate Prospective Teachers. This area, of course, has been the purview of the college textbook publishers whose "education lists" have served their purpose reasonably well in the past. But the accelerating rate of change in the technology of education presents new pressures and needs. If the role of the *book* in education is changing—if the book is coming to be a component of a multimedia system rather than *the* text of which the teacher was usually at best a proponent and an extension—will just a textbook serve to teach undergraduate prospective teachers about education? *The pertinent technologies* that are here now, and those that are coming soon, *can be "taught" to today's undergraduates only if they are utilized effectively in undergraduate teacher education.* The demand and the opportunity at hand for prospective authors and publishers of college education texts is to go farther and faster in "getting with it" where new technology is concerned. And just books *about* technology won't be enough. *Effective education of prospective teachers must become a living model of effective ways to make use of the new technology in the classroom or this new technology won't even get to the classroom on any large scale.*

Pre-Service and In-Service Training in Methodology, in Use of Materials, and in Special Purpose Programs. At last we have come to the area in which the opportunities for industry to make practical contributions seem to me to be greatest and most immediate. The conference for which this paper has been written, is necessarily addressed largely to the need to prepare teachers to cope with, to harness and to use the new technology. The need is great and it is recognized. The approaches to providing for the need may be as numerous and as varied as there are school districts. The concern today is such that we are certain to start off in many directions at the same time, and there will certainly be great inefficiency in our national effort to get the answers. But why should every school district attempt to prepare its own course outline for training its own teachers? Why should every school district devote many years of effort and talent to developing its own materials of instruction for its own pre-service and in-service training programs?

We have learned that it doesn't pay each school district to publish its own textbooks for students and that, even if the talents and resources were available in the school districts to do the job well, it just wouldn't be economic to publish for such a small population. It doesn't even make sense on a state-wide level in most situations. The textbook, published to serve a national need—written and published with scholarship, care and resources that a national market can justify—has served no greater purpose than that of freeing the teacher to do other things that she can do better than construct a course outline, and attempt to gather and produce most of the instructional materials for her students. The critical need to prepare thousands and thousands of teachers to use the new tools that educational technology provides—and, in so doing, to meet the requests of the students to make their educational experiences relevant—offers no less obvious an opportunity than that which has existed for the textbook for so many decades.

The school districts are going to have to require much more than they do today in the way of pre-service and in-service training. As they do this the demand for materials to be used in the training of these teachers will grow rapidly. As this demand grows—and, in fact, to nurture its growth—the instructional materials industry must offer an array of thoroughly modern teacher training materials to be sold for use in these programs. These packages or "systems" of materials may be largely modular in concept.

It will be most helpful to those charged with planning and conducting such teacher training programs if many of these materials are well suited to self-instruction—with built-in devices for monitoring and evaluating progress of the trainees. They must be so designed as to serve as models of the technology they espouse. Most will cost much more per student than textbooks, but if they are good enough to do their job well they will find a market including many who are ready and waiting to buy. They will sell because the real gain to the school districts that use them will be in the conservation of resources that would otherwise have to be committed to the development and production of home grown programs, most of which would be inferior because of the limited resources that could be applied to their development and production. This is not to say that industry can do it all. There will always be programs—local in need and nature—that only local school district resources can provide. But this is all the more reason for the instructional materials industry to provide for those needs which are national in scope.

In the heading for this section there is reference to training in methodology (and philosophy), in use of materials, and in special-purpose programs. Perhaps I can best get across what I have in mind by offering an example of each. If mentioning these examples seems to be revealing a proprietary interest to would-be competitors, it should be noted that competition in any of these three areas might help to serve education even better, and that there are plenty of other targets of opportunity. An example from the category of methodology is a self-instructional course in the establishment of behavioral objectives. An example of a program in the use of instructional materials is a self-instructional (but monitored) course in the use of a popular system of programmed materials for use in the primary grades. The purpose of this packaged course would be to provide the school district that has adopted this primary grade program with a training program for its teachers that would be more intensive than free consultant services could provide and one that could be available whenever it is needed. It would consist of text and programmed materials, sound motion pictures and sound filmstrips. The example of a special-purpose program is a short orientation program (also multi-media) for teacher aides. This, too, would be self-instructional, but it would have built-in devices for evaluation.

These ideas are certainly not far out. They are the kinds of things that the author of this paper believes the instructional materials industry should be thinking about and doing today. The opportunities for the instructional materials industry to contribute in these ways to the cause of *Preparing Educators to Meet Emerging Needs* appear to be substantial and promising.

CHAPTER 4

Emerging Challenges and Designs for the Preparation of Other Educators

Part One

The Preparation and In-Service Development of School Service Personnel

GEORGE B. BRAIN*

Recent years have witnessed sizeable efforts to alter the management structure of the educational enterprise. How broad and lasting these changes will be remains to be seen. It seems quite clear, though, that a great many school systems and other educational institutions have undergone significant change which others will follow. What are the implications for the preparation of personnel who will work within these new or modified organizations?

No doubt the largest efforts will be needed in the preparation and continuing education of teachers. However, the primary concern of this paper is with those educational professionals who are not teachers—the group commonly referred to as school service personnel. School administrators, supervisors, researchers, diagnosticians, innovators, evaluators, development specialists, and others will require careful preparation through creative pre-service and continuing educational development programs if they are to contribute effectively to emerging management structural designs.

SOME IMPORTANT ASSUMPTIONS

One can only speculate about the eventual patterns of educational management structures. The safest assumption is that organizational patterns will undergo considerable change. There are sufficient trends in evidence, however, to justify several assumptions on the basis of which training programs can be designed. Staff development and preparation programs will have to take into account assumptions such as those briefly presented under the two headings below:

**Professor of Education and Dean, College of Education, Washington State University.* Past-President of the American Association of School Administrators (1965-66). Chairman of Educational Policies Commission, and of Committee on Assessing the Progress of Education. Author of *Increasing Administrative Skills in Organizing Instructional Programs.*

Assumptions About Management and Roles

1. As the science and technology of instruction develop, new kinds of educational specialists will evolve. Three major classes of specialists will result: (1) the instructional designer, that is, the curriculum specialist; (2) the instructional engineer, that is, the instructional systems development specialist; and (3) the instructional manager, that is, the specialist in managing learning environments—including the diagnostician and administrator. Accelerating cultural change, the information explosion and the rate of technological advancement demand a personal capacity on the part of educational specialists for thoughtful and systematic change.

2. Educational teams will require differentiated roles (for example, instructional leaders, teachers, aides, clerical workers, technicians).

3. Instructional personnel will have access to computer storage and retrieval of data on pupil personnel, achievement, program, etc. Information retrieval apparatus will also be available for display of printed material, and taped or filmed material from many sources.

4. Machine-scored testing will be immediately available as will programmed material for any instruction lending itself to linear or simple branching forms. Audio-visual materials will be readily available, and instructional materials can be obtained for a wide range of individual differences among students.

5. Instructional techniques will include individually prescribed instruction, electronically equipped individual learning stations, space and time for individual interaction between instructional team members and students. The school day and school year will be flexible enough to adapt to a wide variety of arrangements for student and staff deployment. Many resources (monographs, films, persons, situations, locations) will be accessible for instructional purposes.

6. Competencies, training, and operational activities will be specified for each level of function which is identified by study (for example, "master teachers," "staff teacher," "aide," etc.) in behavioral terms rather than in generalized categories. Statements of educational functions required for 1980 schools describe a world in which it is difficult to envision a career built along what, in the past, were typical lines of administrative promotion from classroom teacher to vice-principal to principal and to central office. For professional school service personnel other than line administrators the traditional patterns of development also appear unlikely.

Assumptions About the Education of Administrators

1. A viable administrator preparation program must center around predefined performance objectives (behavorial objectives) that lead to

the competencies administrators will need in order to function effectively in their emerging roles.

2. Instructional systems which have a known degree of reliability in bringing about specified competencies must be developed for, and employed in, the administrator preparation program. Competencies can be assessed at three levels of mastery: (1) *knowledge,* as measured by identification, recognition, recall, etc.; (2) *understanding,* as measured by extrapolation, analogy, generalization, abstraction, etc.; and (3) *skill in application,* as measured by performance under simulated or laboratory conditions.

3. As the science of human development and learning advances, and as the knowledge explosion progresses, new classes of education outcomes will receive priority. Foremost among these will be:

- Higher order outcomes within the cognitive domain, that is, critical thinking, problem solving and evaluative skills;
- Attitudinal outcomes within the affective domain; and
- Interpersonal competencies within the social domain.

Together these outcomes will aim toward the development of committed, self-directed, competent administrators who can relate meaningfully and effectively to others.

4. Such a program must employ an information management system which permits prospective administrators to enter, advance and leave the program, insofar as possible, on the basis of criterion performance measures. This approach moves away from a preparation program which is time or course bound to a program that is performance based.

5. This program must be adaptive and responsive to individual learner differences. Operationally this means such a program must permit school service personnel to move through it at different paces and in different combinations of instructional and clinical experiences that fit differences in learning styles and background and accommodate different patterns of interest by permitting in-depth experiences. All school service personnel, however, must demonstrate satisfactory performance based on an agreed upon minimum set of competencies prior to their certification as competent administrative specialists.

PURPOSES AND OBJECTIVES OF THE TRAINING DESIGN

The purpose of the design for training is to describe a comprehensive, systematic, preparation program for improving the qualifications of professional persons who will be serving educational systems in positions other than in the direct teaching of children. Although this design does not include the classroom teacher, nevertheless, *the ultimate aim of any staff development program must embrace the goal of enhancing improvements in pupil attitudes, behavior and learning.*

The preparation program for persons serving educational systems in capacities other than teaching suggests that the purposes and objectives of the training design be clearly formulated. The following objectives represent some of the more salient purposes which the design for training should encompass:

1. To help administrators, supervisors, and specialists assess realistically their own capabilities and needs;

2. To help these professional administrators acquire the direct knowledge of conditions about educational duties that they must have in order to perform their administrative functions effectively;

3. To provide prospective administrators with the practical experience they need to perform in their jobs at a high level of efficiency and effectiveness;

4. To help personnel in these roles understand the dynamics of the relationships and interactions between and among administrators, supervisors, teachers, pupils, and parents;

5. To expose participants to effective approaches to educational administration and supervision;

6. To acquaint participants with the social and physical environments of the settings in which most will work;

7. To explore with participants the meaning of environmental factors that handicap learning so that administrators will be more knowledgeable about their implications for children and what schools can do to compensate for them;

8. To incorporate into preparation programs practical experiences in the new technology—especially with computers and systems analysis;

9. To provide feedback for staff development and training program personnel from various sectors of the professional community on the relevancy and effectiveness of the preparation and development programs; and

10. To permit participants to make recommendations for the modification of existing programs.

The objectives can be summarized in the concept that administrators and other school specialists must be given the resources to *cope* with the immense problems confronting the schools and society. Mere coping behavior will not be sufficient to keep the schools sensitive to the needs of 1980. It will not be enough for administrators to make progress toward the goals established for that time. The administrator must also be prepared to re-evaluate those goals and promote even higher ones when the temptation may well be to do just the opposite: that is, to debase institutional objectives as a "realistic" response to external forces. Indeed, it is only by setting increasingly higher goals that the process of organizational congealing can be forestalled.[1]

COMPONENTS OF THE PREPARATION PROGRAM

From these considerations the *first* specific training objective can be inferred: *the administrator must be imbued with a social ethic and the tools of a philosophy of human values.*

A second specific objective is that he understand institutional dynamics at both a general and a specific level. One might be bold enough to call this area the theory of administration. Unfortunately, a consensual theory of administration does not yet exist—although pieces of such a theory are being assembled.[2]

These existing pieces of a theory constitute a body of knowledge and speculation with which administrators must be familiar—not because they provide immutable principles which, if followed, guarantee success; but because they contain distilled experience which permits the administrator to establish a general strategy without having to rely upon his own limited experience.

It is also implicit that there is a value component involved in this body of knowledge. It is not the abstract ethic of social welfare but a more pragmatic recognition of human participation in cooperative enterprise. It seems almost simple-minded, but administrators in preparation must be reminded that people are not objects and that conscientious work is the product of free commitment—not of coercion.

A third consideration is that of specific skills. In contemporary terms, we enter here into the domain of management science.

The administrator is most particularly a decision maker and the problem is to engender skill in making decisions. Decision making can be divided into two major components: information gathering, and choosing among alternative actions. Management science purports to provide a set of techniques to facilitate both component operations. For example, the advocates of management science have demonstrated that the information required for many kinds of decisions can be cast in quantitative form and that, when this is done, algebraic formulas can be applied which yield unambiguous comparisons between alternative choices.

The use of measurement techniques—information and data processing, record keeping, file management, outcome prediction techniques and the like—all require specific instruction and practice. This observation holds whether the administrator is directly involved or whether he only arranges for these techniques to be utilized. He is the *responsible* person in either case.

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[1] R. M. Hutchins, "The Administrator," in R. B. Heywood, ed., *The Works of the Mind* (Chicago: University of Chicago Press; 1947).

[2] J. C. Thompson, "Modern Approaches to Theory in Administration," in A. D. Halpin, ed., *Administrative Theory in Education* (Chicago: Midwest Administration Center, University of Chicago, 1958).

A fourth component of the preparation program *must include experience in communications.* So important has the factor of administrative communication become in the operation and development of the public education system that the administrator's sophisticated employment of communications and his personal communications skills are essential—not optional—qualities. The emerging role of the administrator as a mediator between groups has made more apparent the essentiality of the communication factor which has traditionally been ignored in the literature and in preparation programs for administrators. Although they write for a business management audience, Fischer and Strong state in very clear terms a challenge that is appropriate for the school administrator:

> No matter how varied his activities, or how special some of his skills, in the final analysis the job of every executive or supervisor is communication. Essentially, he must get work done through other people, and to accomplish this he must communicate effectively with them. Here, then, is the 'X factor' in the manager's job—the extra skill inherent in all his activities—which means the difference between success and mediocrity.[3]

A fifth consideration which must be given attention in the preparation of school administrators *involves leadership needs in political activity.* Traditionally professional preparation programs have emphasized the governmental reform concept that politics and school administration should be separated. This pattern is no longer viable and surely it represents a condition that must be rectified in preparing administrative personnel for leadership roles in the schools. Successful administrative behavior in the political realm begins with accurate, empirically based knowledge and conceptualization of how significant educational decisions are made through the political process. The preparation program must emphasize the concept that educational leadership and politics are not dichotomized and that schools are inextricably connected with the political systems in which they function. School administrators must be trained in skills of developing and administering political strategies that will assure educational improvement.

A sixth consideration in the preparation of school leaders *must focus on the ability of the administrator to interpret and apply the tools of research.* Administration personnel must have an understanding of the resource system, including an appreciation for research values, concerns and methods and a thorough grasp of the processes of knowledge storage and retrieval methods and tools. Social psychology may have a great deal to offer in this regard—in bringing researchers and administrators together in worthwhile communication.

Finally the preparation program must be so designed as to provide opportunities for direct involvement in the processes of administration and

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[3] R. L. Fisher and R. J. Strong, "The Manager and Communication," in *Effective Communication on the Job,* eds., Elizabeth Marting *et al* (New York: American Management Association, 1963), p. 15.

leadership. The clinical internship should become the core of the preparation program and it should make possible careful observation of the developing administrator's behavior as well as of his skill in diagnosing problems and the consideration of strategies to resolve them.[4] Through participation in seminars, clinics, and work-conferences, the developing administrator should be helped to see the kinds of images he creates and the kinds of consequences that result from his personal interventions into educational situations. The internship should include experience not only in an educational setting but also assignments in government and in one or more social agencies. Thus the internship will require a more extensive time allocation than presently prevails.

In summary, there are several objectives or end products to attain through any preparation program which is intended to provide training for educational administrators: (1) the building within the administrator of a philosophy of social welfare—a social ethic; (2) the establishment within the administrator of an understanding of the general processes of institutional operations including the principles of voluntary participation by human elements of the institution; (3) the development by the administrator of specific skills related to decision making; (4) the management of the apparatus of information gathering and choice; (5) the effective use of communication as a leadership tool; (6) creating within the administrator an understanding of the political techniques and strategies that will assure educational improvement; and (7) the development of opportunities that provide for direct involvement in actual administrative situations.

Margaret Mead, the anthropologist, once asserted that education must prepare persons to live in a world in which most of the knowledge they will require to function effectively will not have been discovered at the time the persons are being trained or educated. For example, most persons who are actively engaged in school administration today did not receive formal training to prepare them to cope with the problems of year-round teacher negotiations, or militant teacher groups expressing their demands by putting muscle into them with threats of strikes, boycotts, economic and other sanctions. No longer will the administrator confront the model of a Mr. Milquetoast who, hat in hand, makes a modest, persuasive plea that perhaps salaries should be increased.

THE CHANGING ROLES OF SCHOOL SERVICE PERSONNEL

Not only has the general administrator's role changed but so also has the role of supervisors, principals, curriculum specialists and other professional school service personnel. With certainty we can predict that one inevitable consequence emerging out of the knowledge explosion and the new technology utilizing multi-media approaches to learning will be the invention and evolution of new roles for school personnel. By 1980—and perhaps even now—some educational personnel will be occupying positions for which the need no longer exists.

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[4] Keith Goldhammer, "Implications for Change in Training Programs," in *Knowledge Production and Utilization in Educational Administration*, eds., Terry L. Eidell and Joanne M. Kitchel *et al* (Eugene, Oregon: Center for the Advanced Study of Educational Administration, University of Oregon, 1968), p. 182.

Let us consider a few of the changing functions which will surely create changing roles for various types of school personnel. One function that is undergoing drastic change in many schools is the supervision of teachers. Pressure for change originates from several sources. The notion of the supervisor as an inspector and evaluator has never appealed to teachers. Militancy among teachers and their growing strength will increase the distinction between teachers and "management"—that is, supervisors. Supervisors will have to perceive themselves in a role different from that of confidant or father confessor.

Several of the regional educational laboratories are experimenting with the creation of new roles for persons who will work with teachers. These positions characteristically require special training in group dynamics, classroom interaction analysis, feedback technology such as video tape recording, and category systems for the analysis of instructional methodology. Systematic procedures for conducting analytic sessions are not as highly developed, but there is a trend toward addressing attention to *teacher problems rather than to supervisor problems.* There are problems in simply finding a suitable title for the job; "supervisor" and "leader" smack of authoritorian, hierarchical lines of command. On the other hand, "specialist" and "consultant" connote high priced know-it-alls who make "hit and run" appearances and are completely unconcerned about implementation.

One major area of concern for administrators involves the problem of getting people to work together. This is not a new problem, but it takes on added importance in view of the pressures for increased participation in decision-making processes by students, teachers, minority groups, and citizens in general.

The sources of power and the avenues through which it can be exercised have become incredibly complicated. School people who will create or occupy new roles between now and 1980 will have to contend with an "establishment" which will no doubt resist their entry.

CHANGE AGENTS

There has been great emphasis on "innovation" in education in recent years. School officials feel obligated at least to appear supportive of new arrangements which promise to improve educational endeavors. However, the person who has risen to the top under an existing system has a strong tendency to think it is, after all, a pretty good arrangement—witness the fact that it selected him. The existing system can resist the introduction of new roles by isolating persons occupying new roles from the mainstream of action or by absorbing the personnel into the unchanged structure.

Much has been written about the need for "change agents" in the educational enterprise. Both pre- and in-service training programs should include explicit knowledge and experience in the processes relevant to accomplishing change in social institutions. Between now and 1980 there will surely be an increased demand for the services of innovators. On-the-job training can be organized and augmented to produce more effective change agents in greater numbers than heretofore.

In many instances, the change agent can be a specialist from within the organization. The positioning of such an agent in the conventional organizational structure is usually awkward and embarrassing to all concerned. Consequently, a novel structural device is needed before an individual or a team is cast in the role of change agents.

TASK FORCES

A structural device that is often used, and is suggested here, is the task force or project team approach. The task force or project team should operate semi-independently of other organizational units. Such teams can be composed of specialists from the various disciplines plus an admixture of operational personnel borrowed from other organizational divisions on a temporary-assignment basis.

The presence of such task force elements serves three functions: (1) cross fertilization of ideas; (2) opportunity for change of setting for employees; and (3) the concentration of brain-power on a specific problem.[5] The structural arrangement also provides a way around entrenched bureaucracies that sometimes serve as barriers to educational progress.

COPING WITH TECHNOLOGY

Another concern in the preparation of administrators might be called the problem of "coping with technology." The need is to acquire the competence necessary to understand the operation and capability of any new apparatus—be it office machines, instructional hardware, or computers. Another difficulty is the discrepancy between the "hardware" and the "software" in educational technology. In recent years the manufacturers and distributors of teaching machines, language laboratories, and electronic information access systems have had available very sophisticated equipment. However, the amount of good program material has been somewhat disappointing.

The recent formation of education corporations combining publishing and electronic or retrieval capability portends a sizeable impact on schools and their personnel. An increasing amount of manpower from the educational community will be employed in the education industry by 1980—certainly a greater portion than at present. Aside from new employment opportunities, it seems likely that an increasingly large number of educators other than teachers will be involved in new systems of instruction within the school setting. Many will be occupied with the preparation of instructional materials—not just the conventional array of audiovisual aids, but rather a wide assortment of printed matter, learning devices, testing instruments and the like. Trends toward the individualization of instruction indicate that a fantastic amount of educational material will be required to implement programs for which prototypes now exist for only a few subjects and grade levels.

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[5] V. A. Thompson, "Bureaucracy and Innovation," *Administrative Science Quarterly*, 10: 1965, p. 20.

It appears that any reduction in the number of classroom teachers resulting from the new technology will be accompanied by a corresponding increase in the number of professionals who are developing, adapting, and revising "software" for the instructional systems. These individuals will face the problems of gaining acceptance within the establishment, justifying their worth to the taxpayer, and refining and organizing their talents to attain high levels of efficiency and effectiveness.

ROLES AND STATUS

The introduction of new roles into the existing educational structure will create difficulties in establishing status for these positions. The individuals who first occupy the role may set the pace for future occupants. For example, when a new job has been created in the past, individuals have asked what talents and responsibilities are required as compared with those needed for existing jobs. In the new scheme of school staffing, questions are sure to arise about whether an educational diagnostician is worth more or less than a building principal or whether an instructional systems development specialist is equivalent to an associate professor in terms of the training required or of the competence that must be demonstrated.

There has been great emphasis during the past few years on instructional objectives which are stated in terms of observable, measurable behavior outcomes. An inevitable consequence of this emphasis for teachers is an expectation that others in the profession will likewise state their goals in terms of empirical criteria. There is great need for school administrators and others in allied educational specialties to be able to specify desirable aims in such a way as to clarify appropriate means for achieving them and suitable procedures for evaluating their attainment.

Unfortunately, in most present day preparation programs, few institutions train school personnel other than teachers by utilizing specified objectives to be accomplished. Few state departments of education have outlined specific and measurable objectives for the courses or programs they require of the school specialists they certify. One deficiency which must be eliminated from the present preparation programs for school administrators is the lack of written, clearly defined, and measurable objectives.

Surely, a most important accomplishment that can occur in any evolving preparation program is for the administrator or educational specialist to learn what is required to operate efficiently in his job. One way, and perhaps the only sure way, to determine whether such learning has taken place is to test for it. If preparation programs for school administrators do not specify in their designs what school administrators are to learn, no test can determine whether the school administrators have learned what they needed to know. Preparation programs for the future must seek to overcome the present deficiencies in evaluation—that is, the lack of measuring instruments, and lack of desire to administer these instruments to school administrators to determine whether they have learned the objectives previously specified.

Many have commented on the educator's tendency to let his humanitarian instincts cloud his aspirations for human performance in the real world. One may see a similarity between curriculum directors and hymn singers as they chant their hopes for goodness, understanding, and wisdom. At the other end of the educational assembly line, the product may be given only a "Gee Whiz" evaluation—that is, "Gee whiz, these kids are doing great." Therefore, curriculum workers and evaluation specialists are confronted with a demand for improved ability and willingness to "tell it like it is," by stating outcomes in concrete terms.

OTHER DEMANDS

As costs of education mount, citizens understandably will increase their demand for demonstrable products for their investment. Cost-effectiveness studies have not been widely applied to educational endeavor. Our value system and cultural tradition have placed the school "market basket" in a more sacred category than a market basket for many other tax-supported commodities. School officials must immediately begin to face up to the problem of presenting evidence of tangible results in terms of cost-benefits. This need for cost-benefit reporting has significant implications for the preparation of personnel for the schools of the 1980's.

Designs are needed for equipping personnel to function effectively in new settings. One way to avoid a lag in training capability is to arrange for promising developmental sites to serve as training centers. Graduate assistants who have participated in the development of successful innovations at universities have gone out into the world to implement similar programs at other institutions.

One approach to answering the need for experienced development specialists or "education engineers" is to provide on-the-job experiences systematically for promising professionals in graduate school programs or through in-service activities. Another challenge often arises as personnel obtain advanced training. School districts of moderate size seldom have enough positions to accommodate all of those who might aspire to advanced degrees or more specialized roles. It may be a healthy influence for persons to be encouraged to move around as they move up. Many corporations have policies in this respect.

Another challenge faces educators who recruit, train, and seek placement for administrators who will function at higher levels of responsibility and service—the notion of equitable distribution of personnel according to ethnic, racial, and religious identification. One issue is the matter of simple numerical representation in proportion to population. Another is the matching of competencies and needs. For example, an organization doing research on the education of American Indians has a logical and practical need for Indians on its staff, but the supply of available statisticians or research designers with appropriate blood lines may be very limited. Such situations, particularly at management levels, may be real. They should not be used, however, as convenient excuses for failing to correct injustices.

THE IN-SERVICE TRAINING PROGRAM DESIGN

It is somewhat humbling but instructive to observe that the life history of most in-service training procedures for school administrators and other educational specialists looks somewhat like the pattern of female fashions. There are fads and cycles. Sometimes, after a decent period of mourning, some deceased idea is revived and enthusiastically re-adopted under a new label. The practice usually isn't any more effective when revived than it was when dead.

We can avoid such humiliating situations only if we hew strongly to some fundamental facts of human psycholgy. Time, energy, practice, active participation, and some emotional stress are and will remain the essential ingredients of learning.

However, we are faced with an economic problem. There is a limit to the time and fiscal resources that can be allocated to an in-service training program. Thus, the time an administrator spends in training is presumably time taken away from substantive administrative duties. The polar alternatives may be those of having an accentuated shortage of manpower but reasonable competence among those on the job, as opposed to a larger supply of persons who are not particularly competent. The point is that we must make the in-service training process as efficient as possible in light of the constraints of human and technological capabilities.

The question then becomes: Does the educational technology contain valid elements, as opposed to mere gimmicks, which are not now being exploited to the fullest possible extent? The answer must be: "Yes."

STAFF SEMINARS

Two specific techniques can be used to illustrate this contention.

First, it is widely appreciated, among academicians at least, that the process of teaching is substantively instructive to the teacher. That is, the teacher not only learns better *how* to teach by practice on the job but learns more about *what* the content of his or her subject matter should be.

The obvious implication is that one way to teach administration to administrators is for them to attempt to teach it to others. Moreover, there are practical means to implement such an idea. The summary label for these means is the staff seminar. That name probably has unfortunate connotations for many aspiring administrators. However, the usual pall of boredom that hangs over such an enterprise need not exist if a modest amount of planning and preparation is undertaken.

The model situation is one in which an instructive dialogue is established between the working administrator and his colleagues. It requires some formal structuring and a clear procedural distinction that is quite different from the conventional staff meeting. The theme can vary from consideration of classroom procedures, in which the administrative question is quality control and records management, to institutional philosophy and theory. Such an arrangement would obviously serve a multitude of purposes beyond preparing and developing the administrator. A new channel of vertical communication is one advantage and the enlistment of enlightened participation by colleagues is another.

But what about the primary purpose? It seems safe to assume that the focalization of attention, the need to organize material, and the need to *demonstrate* the specific technology of administration will facilitate learning at all three levels: philosophy, theory, and technique.

SIMULATION

A second example of what seems to be an underused method of in-service education has the generic title "simulation." This title incorporates a family of procedures. Most persons have encountered one or two of these—usually in a rather superficial way. Included under this heading are management games, synthetic staff exercises, role playing and some other minor variations.

The great advantage of these techniques is their provision for realism and active practice (participation) without the consequences of, or penalties for, mistakes. In other words, they permit the decision maker to experiment—to try the unusual—without the fear of loss or failure that usually inhibits innovation.

These techniques also permit a form of time compression so that (a) a great deal of practice can take place in an economical time span, (b) loss of interest and distraction are unlikely, and, perhaps most important, (c) patterns of effective behavior emerge and can be perceived in a coherent form. In so-called "real life," much experience is lost in the training process because it accumulates so slowly and spottily that it is easy to forget the first pieces before the last pieces are in place.

On the negative side, games and synthetic exercises are now mainly laboratory curiosities. There is only a limited library of these instructional materials and most of those available are relevant to fields other than education. Several games are available such as the UNIVAC management games for businessmen and the SCD games for military operations. They are only marginally useful for educators.

BETTER APPROACHES NEEDED

These two examples are enough to suggest that educators are not being sufficiently aggressive in developing the tools to educate themselves in administration. Such a condition would be scandalous in ordinary times because educators are presumed to be experts in training. But the complexity, magnitude, and urgency of problems that will confront administrators between now and 1980 demand greater efforts, bolder designs, and more imaginative approaches to continuing professional education than anything developed heretofore. Traditional responses to in-service education for administrators have serious flaws. They have tended to be slow to respond to critical issues. Typically, program efforts have been uncoordinated, lacking in continuity, segmented in approaches, and superficial with respect to content, resources, and the planning required to meet the challenge of the future. What is needed is a program plan that can be readily adapted to pressing needs, provide a program focus, and can employ flexible approaches necessary to the task.

A FIVE PHASE IN-SERVICE TRAINING PROGRAM

The objective of this program is to maximize individual and organizational effectiveness. It is designed to apply existing knowledge about learning and organizational improvement to the problems of school organization and to the staff development and training function.

This in-service training program is designed to insure that the initial training component (Phase I) is rapidly implemented in on-the-job situations and, thus, to avoid the artificial gap that sometimes exists between training and operational activities. Emphasis is given to the development of internal training resources so that undue dependency on external resources can be avoided. The program introduces and continually reinforces a relatively small number of significant concepts chosen because of their relationship to organizational needs. By instituting the training at the various levels of the school organization somewhat simultaneously, it is possible to ensure the vertical reinforcement of these concepts and, thus, make it possible to build a common conceptual framework within all levels of the organization.

The second step (Phase II) provides work teams with an opportunity to apply to immediate problems the concepts developed in the initial training. Phase III of the program involves inter-team development activities in which related work teams have an opportunity to develop more effective working relationships pointed toward specific organizational objectives. Phase IV deals with problems of organizational analysis where broad questions of organizational improvement and change can be made. Phase V provides the impetus for applying what has been developed in the previous phases and ensures that the system is a self-correcting one.

The five phases are aided and supplemented by on-going consultation services, particularly at the department level, and by selected programs of skill training activities related to specific needs as they appear. In an effort constantly to evaluate the program and implement change where necessary, a survey feedback system is used.

DESCRIPTION OF THE FIVE PHASES

Phase I—Initial Training Program

The specific objectives are:

1. To develop an increased climate of openness and trust in which learning can most effectively take place.
2. To develop conceptual understanding and skills in the areas of problem-solving, planning and decision making; leadership, supervision and motivation; communication and perception; and the culture and climate of work groups.

Staff Experiment. The participants break up into groups of 9 or 10—each with a trainer—and, through methods such as role playing, different leadership types are illustrated. The entire group is then brought together and the various leadership types are presented. After each presentation, each role player is asked to give his reaction to being a subordinate or a supervisor relative to the leadership type presented. This exercise helps the participants recognize the impact and consequences of the various styles of leadership. Following the presentation, a theory session is held in which personnel generalize on the previous experience, analyze and synthesize the various points made.

Team Solution-In-Basket. The participants again breakup into the same groups of 9 or 10 for the stated purpose of working on the best solution to a given case problem that is presented in a win-lose situation. After an hour or so of teamwork on the problem each group presents its solution in a joint session. Each team may elect to appoint a single spokesman or a number of representatives. After the presentation the groups again separate and each individual is asked to evaluate, orally or in writing, (1) his role in the group, (2) the effectiveness of the group, (3) the effectiveness of those selected to present the solution, and (4) what could be done to improve the workings of the group.

Each team is then given another case problem to work on. Whereas the first case problem was a win-lose situation, the second problem is one of an interdependent nature in which conflict exists and where win-lose strategy won't work. Each team is given a chance to collaborate but usually no agreement is reached by the time for its presentation to be made.

After the presentation (in which emotions are apt to run high) a trainer helps the participants explore how the problem was attacked. The ensuing discussion helps to illustrate that the method used to attack a specific problem must fit the problem and that there is no one set method of attack. Competitive situations are usually characterized by secrecy, reliance on persuasion and magnification of differences; collaborative situations are usually characterized by openness, revelation, listening, understanding and emphasizing the similarities prior to working through the differences that have been identified.

Force Field Analysis. The force field analysis in a sense is a follow-up to the In-Basket exercise. In this session, a combination lecture-discussion technique is used to develop a general method of attack on problems. The preferred method of attack is to determine the problem and the variables underlying it, determine the forces operating for change, list the possible change strategies by adding or removing forces and by increasing or decreasing forces. One hour is given to developing the method of attack, followed by a group critique and discussion of the method, and finally by a theory session to sum up and make relevant the points brought out.

Constructive Feedback and Trio Experiment. The trainees break up into groups of three. Each member of the trio takes a turn at being an observer, the person asking for help and the person giving feedback. In this exercise, the role of the person giving feedback is to criticize constructively the one asking for help and to make suggestions which he feels could help the appraised become a more effective leader. Typical comments might be that the appraised frequently interrupts conversations, talks too much, or is too quiet and secretive, etc. After a twenty minute session, each member of the trio changes roles and the process is repeated. The role of the observer is to keep the feedback to the point and to hinder any mutual "back scratching" which might take place. If any trio member doubts any of the criticisms leveled at him, he has the opportunity, and is urged, to consult his work group of 9 or 10 persons for further clarification.

Modified "T" Groups. The modified "T" Group of 9 or 10 participants is actually an expansion of the trio where trainees can verify, expand upon or disprove any feedback given to them in the trios. Each member is urged to explore further what his true impact is on other people, whether in a work-type situation or in the training session. The modified "T" groups last for a minimum of a day and sometimes for two days.

Helping Relationship. Trainees again break up into groups of three and through attacking several short problems they are encouraged to assume attitudes of coaching and counseling rather than "experting" on problems. The exercise is designed to help each individual help others by mutually exploring the problem and encouraging others to learn from their own thought processes and experiences, rather than from being "told" the answer.

Personal Planning Exercise. Three main groups are again formed and each individual makes a self appraisal of himself and tells the other group members what he plans to do to improve his personal performance and effectiveness. The remaining group members serve the function of questioning the respondent as to his proposed method of attack and exploring the possible outcomes.

Appraisal of Phase I. Phase I is designed to accomplish a number of specific goals. Among them are:

1. The participants are made aware of the alternatives available to them in their approach to leadership and the consequences on productivity, involvement, and commitment.
2. It gives the participants an awareness of their predominant style of leadership and the impact it is having on other seminar participants.
3. It provides participation with an understanding of a more effective leadership style as a model toward which to grow and develop.
4. It helps provide participants with specific skills which aid them in the establishment of a more effective approach to leadership and supervision.
5. It gives participants the opportunity within the training setting to try out and practice these skills in dealing with and relating to people.
6. It provides an opportunity for individuals to become acquainted and to establish effective working relationships.

Phase II—Team Development Program

When members of a team complete individual training they begin as a group to examine such factors as their leadership, communication, interpersonal relationships, relationships with other teams and decision-making skills as these affect their operations.

Emphasis is placed on providing teams with an opportunity to apply the concepts developed in individual training to immediate organizational problems. Data returned from the survey feedback can begin to be applied at this juncture.

The objectives of Phase II are:

1. To increase ability to apply the previously introduced conceptual understandings and skills.
2. To develop more effective team efforts.
3. To examine, improve and clarify objectives.

4. To identify problems of coordination and cooperation with other functions and at other levels within the organization.

Phase II is a two-day session conducted in an environment away from the job. Unlike Phase I, Phase II has no skill sessions and concentrates almost entirely on developing openness within the team.

Phase III—Interdepartmental Team Development Program

Problems of coordination, cooperation, support, communications, and misperception that are identified as existing within the organization receive attention. Generally the approach is a direct confrontation of department members, or of representatives if size is a factor. Depending upon the nature, severity and duration of the situation, techniques for resolution will range from joint problem-solving through clarification of higher level organization objectives and methods of accomplishment, on to intergroup therapy.

For the departments involved, the objectives of Phase III are:

1. To improve communications in order to gain and to maintain cooperation and coordination of effort.
2. To revise objectives better to meet total as well as departmental objectives.

Phase IV—Organizational Analysis

Phase IV provides individuals with an opportunity to apply their understandings and skills to school-wide problems where broad questions of organizational improvement and change can be analyzed and where recommendations for change can be made. Detailed investigation, planning, and experimentation can be assigned to appropriate departments or to specific study groups within the organization to pursue changes which are determined to have feasibility.

The specific objectives of Phase IV are:

1. To rethink and improve upon every aspect of the educational process.
2. To anticipate, and plan for, change.
3. To develop coordinate systems relevant to organizational goals.

Phase V—Implementation

Phase V provides the impetus for applying in an integrated way what is developed in the first four phases and for assuring that the system is a self-correcting one. Goal setting and measurement are emphasized in that these constitute important aspects of individual, group, and organizational life. This emphasis provides for feedback to make the system a self-correcting one. Possible changes which might be covered in a Phase V session would include changes in organizational structure, changing functions of certain organizational units, more comprehensive planning of objectives for all levels of the organization, more rapid assimilation of innovations in teaching, as well as a review of personnel policies and practices.

IN SUMMARY

This type of in-service program plan holds considerable promise for the reinforcement and extension of leadership capabilities in helping the practicing administrator sense and shape new educational policies and directions, and to manage with ever-greater competence educational systems that will become increasingly complex in the future.

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Part Two

Systems Breakthroughs In Educational Leadership Development Programs

S. J. KNEZEVICH*

Many recent publications, including those sponsored by *Designing for the Future,* have documented in dramatic fashion the intense ferment confronting the American culture. This seething and a commitment to change are signatures of our times and touch every social institution including education. It would be incongruous, indeed, if designs for the preparation of non-instructional leadership personnel were to remain static or mired in the posture of preserving the status quo in the face of such massive pressures. There is a growing swell of concern within and outside the profession for a fundamental revision of the substantive content as well as the methodology employed in readying persons to assume varying degrees of responsibility for the direction and operation of schools. In the previous paper Dean Brain has presented some unique alternatives. There are others. The main thrust of this paper will be on some crucial problems, with particular emphasis on those whose resolution is important to achieving what Boulding, in a paper prepared for the first conference report, called a "systems breakthrough" in leadership development programs for the 1980's.

At least four major issues will have to be resolved if high quality designs for the preparation of future non-teaching leadership manpower are to be a reality. One key issue is the stimulation of *comprehensive involvement in the process*. Responsibility for identifying and developing non-teaching leadership manpower must come to be the concern of the total educational system in a nation and not simply the lonely preoccupation of one subsystem, namely, institutions of higher learning.

**Associate Secretary, American Association of School Administrators and Director, AASA National Academy for School Executives.* Professor of Educational Administration at University of Iowa, Tulsa University and Florida State University.

Time, expressed in terms of the total duration of professional development, is the second key issue. In a world committed to never-ending change, professional development may have a beginning but it has no terminal point short of separation from the leadership post. The term "pre-service—in-service" casts the vital issues into an artificially contrived dichotomy that is devoid of operational significance at this point in time. A systems breakthrough will be all but impossible unless the traditional conceptualization of preparation as consisting of two discrete fragments—a pre-service component that is demanded of all and an in-service dimension that is optional for anyone—is abandoned.

A third difficulty is *the lack of sophisticated instructional strategies* that are: rooted in a conceptual framework of how professional, mature adults can be stimulated to learn; anchored in economically feasible, psychologically defensible, and operationally practical new technologies; and executed by those competent and dedicated to the challenges. A large number of so-called "promising" strategies are suspended in the thin air of wishful thinking. A similar void exists as to what kinds of substantive content are relevant and meaningful to career administrators during their most productive periods of service.

Some degree of overlap should be expected in any array of interrelated components of a system. Resolution of each of the above-mentioned problems rests on the fourth factor of significance to achieving a systems breakthrough, namely, *more massive resource allocations for leadership development*. By the 1980's, the magnitude of increase will be in the order of at least three to five times present levels. The 1960's will be characterized as a decade of unprecedented increases in resources (human, material, and fiscal) dedicated to improvements in preparation quality. However impressive this may be as a start, it cannot hope to be sufficient for the kind, quantity, and quality of educational leadership personnel that will be demanded in the 1980's. Each of these key issues deserves further analysis and description.

TOTAL INVOLVEMENT

In an anxious society *only the highest quality of leadership performance will suffice*. The complexity of educational institutions, the rising expectations for education, and the rapid evolution of new thoughts place an unusually heavy burden of responsibilities on administrators at all echelons in local, state, and federal agencies. It is no longer possible for one element or subsystem to be in command of the input data, designs, and resources necessary to fulfill the total range of preparation challenges. What is being talked about in vague terms today will be an implemented system in the 1980's. Some rudimentary efforts are presently in evidence. They are the first faltering steps in establishing a new arrangement for assuring quality non-teaching leadership. Thus, the informal involvement of practitioners on more or less inactive advisory committees to institutions of higher learning is no longer unusual. Local districts provide the first bits of feedback on the performance of graduates and, of course, are indispensable as the locus of administrative internships.

Tradition assigns formal control of educational leadership development to universities, with informal contributions from others. To illustrate, professional societies have served in the past as forums to discuss preparation issues, or as loyal supporters reinforcing the efforts of agencies assigned more specific and often legally recognized roles. Regardless of the logic that may have supported such divisions of efforts in the past, something more from each will be demanded in the future.

A new configuration of agencies with a stake in the production and maintenance of quality school administration is necessary for a systems breakthrough in the 1980's. The contributions of universities will not be denigrated as a result of fashioning fresh patterns of involvement. On the contrary, appropriate new patterns will enhance the status of the university and will mean the end of lonely roles and passive participation in a vital process.

Total involvement of all segments of the educational system will produce many benefits including more productive inputs from: local districts that employ leadership personnel, the state department that certificates administrators, the federal government that stimulates the design of new preparation efforts, the university that has the staff resources to train prospective administrators, and the professional society whose interests coincide with those of its members who occupy non-instructional leadership positions. What will the new arrangement be like? What will each subsystem contribute? How can the many efforts of separate and distinct agencies located many miles apart be coordinated? These remain unanswered questions at this time. This paper, therefore, raises more issues than it resolves. Some efforts have been expended in the past to the designing of a more meaningful configuration of partners with a stake in the quality of non-teaching leadership manpower. Preparing a more definitive answer is another bit of unfinished business in the profession.

There are practices in existence that are consistent with the total involvement concept. Thus, some accreditation agencies are on record to the effect that no university preparation program can hope to be effective if it is confined to the resources of a single department or even a single college. A commitment from the entire university community is important for quality preparation of superintendents, principals, supervisors, and other types of administrators. Mechanisms have been fashioned in some universities to attain this end. Total societal involvement —particularly a total commitment of the educational system—is an extension of this point of view.

References to the local district as the site for internship experiences and a source of data on performance of practitioners were made in earlier paragraphs. Local education agencies contribute as well to the identification-selection process and to continuous professional development programs. The state department of education can promote or inhibit the design of novel preparation arrangements and new programs. It can be perceived as the agency that issues rigid requirements and/or the unit of government that provides consultant services, hard data on the need for new program designs and encouragement for experimentation. However, the state department of education cannot abandon its responsibility to protect the schools from those whose chances of success in non-teaching leadership positions are minimal while it seeks to accommodate new developments in preparation programs.

The federal government has assumed a more aggressive posture in this area as well as in others. The enactment of the Educational Professions Development Act is the most recent evidence of this fact. The federal influence can be seen in grants that further the professional training of all types of educational personnel, including non-instructional leadership manpower. The national government appears to be committed to a full-fledged partnership rather than to the role of an interested bystander in a matter of crucial importance to the welfare of the nation's school system. Universities are using federal funds to explore exciting avenues for further research and development. Federal concern—as expressed through grant programs and pronouncements—for improvement of leadership preparation programs will expand through the 1980's.

Until recently, professional societies were interested in a passive way in leadership manpower development, depending on universities to provide the primary thrust. The establishment by the American Association of School Administrators (AASA) of the National Academy for School Executives, and the plans developed by the University Council for Educational Administration (UCEA) for the National Institutes for Leadership Development in Education demonstrate a readiness to commit greater resources and a more aggressive spirit. Other approaches are bound to emerge as the immensity and importance of the challenges for preparation of leaders become more evident to all. Upholding membership standards based on preparation as well as on position levels, sponsored conferences, and publications will be continued by professional societies as part of their more traditional approaches to strengthening manpower development.

To summarize, there are many signs of increasing interest on the part of all segments of the education profession in the initial preparation for and subsequent maintenance of quality performance levels among administrators. What is lacking is the design for a mechanism to further unify what presently can be called well-meaning but disparate efforts in a total system for manpower development. Realization of this goal should be accorded high priority.

NEVER CEASING DEVELOPMENT

Life for the educational leader is either a challenge for continuing learning or it becomes a life of nothing but frustration and trouble. Never ceasing development is the inevitable result of living in a time of ceaseless change. Stated another way, *self-renewal for the administrator is mandatory if educational institutions are to stay in tune with the times.* Manpower training, from a societal point of view, is a continuum of approaches to produce and sustain quality performance levels. Termination of learning can be meaningful from an individual point of view and is appropriate only after separation (by retirement or death) from a non-instructional leadership post; it has no meaning in the long range perspective of a dynamic society. The mighty dinosaur, which dominated the golden age of reptiles, became extinct because it failed to adjust to the demands of a new environment. The same fate, and for the same reasons, faces higher order animals—even the man in the most powerful leadership position.

The traditional "pre-service—in-service" dichotomy carries a heavy burden of undesirable connotations. "Initial—continuing" professional development (neither of which should be optional nor dependent upon purely informal and unfocused activity) is a better way to express the nature of the problem. A leadership career, that begins with the identification-selection process, may span several decades and call for differentiated approaches for promoting professional growth at various points in time for the individual and the institution. Lest there be an assumption by some that never-ceasing education efforts are merely the result of inadequate initial preparation, it is postulated that admission into practice in the 1980's will be based on the minimum requirement of a doctor's degree or its equivalent. There have been modifications over the years in standards for completion of a doctor's degree. The conception of the doctorate as a terminal point may be an unfortunate consequence of recognizing a significant professional accomplishment. It may have been appropriate to think of the Ph.D. in those terms in the middle ages when the pace of life was slower and institutions were more stable. Continuing professional growth can be delayed, if not thwarted, when persons with a doctorate assume that the degree demonstrates that all there is to be learned has been acquired and a period of relaxation from intellectual rigors is in order.

The growing variety of school administrative positions—with many being detached from the immediate operation of attendance centers—adds another kind of fuel to the ferment. The emerging breeds of administrators—identified as systems specialists, community relations consultants, and negotiators—are redefining the traditional leadership configuration in administration to be something more than principal—vice-principal — assistant superintendent — superintendent — etc. Fifteen years ago, no one dreamed of a systems expert on the administrators' team. There is nothing to suggest that no other unique types of specialization will emerge by the 1980's. The point of this observation is that post-doctoral specializations will become a regular part of leadership training. It also reinforces the contention that the academic achievement of an earned doctorate cannot be a terminal point. Most of the knowledge explosion is in the new specializations. This suggests that the greater the degree of specialization in educational alministration, the greater the need for continuing professional growth programs. Evidence from the early and enthusiastic responses to the AASA National Academy pre-sessions of November, 1968, supports the proposition that administrators with the greatest amount of professional preparation are more likely to participate in professional development programs than others. Almost one-half of those attending the 1968 Academy field tests had an earned doctorate. This is almost double the proportion of AASA members with such degrees.

No man grows alone; he needs to interact with his peers. What is popularly called "in-service" education was conceived as the isolated response of highly motivated professionals who take time off to read and think. Such dedication deserves to be nurtured with fresh and exciting approaches to the recognition of those who continue to grow. The traditional academic system of recognition was designed for a pre-practice phase of development. Grades, credits, and degrees do not fit very well into the "in-service" phase. The AASA National Academy is creating a new pattern of awards to meet these challenges. These are the "professional development award," "diplomate of the academy," and "fellow of the academy." They represent one approach to the problem with many others sure to come by the 1980's.

The issue as to whether there should be any formal preparation is, at least, implied by those who suggest that persons without experience in education and without special preparation in educational administration are, for some reason, in a better position than others to succeed in key educational leadership roles. There is neither logic nor experience to support the notion that leadership responsibilities in education will come from the uninformed, inexperienced, or ignorant. The fact that there will be new administrative specialists who are not in an intimate way engaged in direct instructional services, suggests that classroom experience may not be necessary for all types of educational leaders. If initial manpower development programs in the 1980's can be shown to better qualify a person for a key administrative position in education, then even those outside the field and without classroom experience can profit from such preparation as well.

Preparation is a means to an end. Administrators assume major responsibility for keeping schools educationally meaningful and socially relevant. New roles continue to be thrust upon leaders at various points in history necessitating, as Dean Brain pointed out, shifts in priorities and goals in leadership development programs. New vehicles can be fashioned and established institutions rejuvenated. AASA based its decision to launch the National Academy for School Executives on the fact that there is a need for a quick-response vehicle to help administrators cope with emerging challenges. Practitioners have to be aided in a manner that will not require extended and frequent interruptions in their positions. No single vehicle can satisfy the massive continuing professional growth demands in education. A differentiated approach is indicated, for not all career lines follow the same pattern. Furthermore, the professional outlook of an individual five years prior to his retirement is quite different from what it was after only five years of leadership experience. Universities, local school systems, and state departments have yet to design their responses to this challenge.

SOPHISTICATED STRATEGIES

Pedestrian approaches simply copy archaic practices or reflect limited insights into the nature of leadership challenges. They are inappropriate today and will be even more so in the 1980's.

For too long, administration has been conceptualized as one man in one position; this unrealistic perception continues to dominate most preparation programs today. *The superintendency is a cluster of positions*—a cluster that is growing in heterogeneity. If there is to be any hope for a systems breakthrough, instructional strategies and instructional content will have to be redesigned to reflect the emerging types of educational leadership positions and the team concept of administration.

Earlier references pointed to the unfortunate conclusion that there are no adequate professional adult learning models. Nor are there significant learning systems designed specifically for the mature and committed professional. Instructional approaches that depart from the traditional are few and far between. What little application exists continues in use without the support of extensive experimental evidence as to efficacy. Bits and pieces of models predominate at this point in time. As Brain suggested, videotape technology can be used to provide instant audio and visual feedback so that an administrator might view his behavior as others do. Such experience can be the beginning of planned changes to operational behaviors to project the administrator in terms of how he would like to be perceived in the eyes of others. Simulation, whether viewed as an elaborate case study or as truly a feedback and interactive experience, is a frequently mentioned strategy for instruction. A few simulated instructional packages exist for the preparation of school administrators but none as yet has been computer based.

There is a dearth of sound films useful in administrative manpower development efforts.

The administrative internship is a means to an end. The fact that an internship is a part of a preparation program is not enough. There must be hard data showing that such experience does indeed result in better performance in a leadership position. A poor internship may do more harm than good if the intern is placed with an administrator whose approaches were more effective yesterday than today. The internship increases in importance as the period of preparation prior to entry into practice is extended. It has not been subjected to the kind of scrutiny its importance suggests nor have many novel approaches to it been designed. We need to know more about what can be done through the internship that cannot be accomplished in any other way; what kinds of learning outcomes are possible through elaborate case studies and computer-based simulation; and what is the optimum mix of internship and simulation to make best use of time available for preparation.

The point bears repeating that there can be no systems breakthrough in the preparation of educational leaders for the 1980's unless models are generated which describe and relate personal qualities, professional insights and technical skills to the demands of educational leadership positions. Unless and until the methodology employed in a university classroom, a preschool work-conference, or a conference or seminar sponsored by a professional society is appropriate to the challenge, all the talk of promising approaches will come to naught. The adornment of a methodology with an exciting title such as "promising approaches" is a poor substitute for hard data on its contributions and limitations in promoting the development of non-instructional educational leadership manpower. A tremendous amount of the time of leaders is spent in the ever-increasing numbers of conferences, seminars, and meetings sponsored by a never-ending group of public and private, professional and lay, formal and informal agencies. The time has come to take a hard look at the contribution of these to professional growth by employing cost-benefit analysis.

MASSIVE RESOURCES

Nihil ex nihil—from nothing comes nothing. There can be no systems breakthrough—no matter how well integrated the approach to manpower development nor how carefully designed the initial and continuous professional development models may be—without adequate resources. Resources are required to pursue missions. The teacher of leaders—the professor of school administration—is an important resource. The day of the one-man department of school administration at a university is over. One of the exciting developments of the 1960's was the expansion of professional staffs in educational administration. Prior to 1960 a large department had 3 or 4 professors. Several universities now have more than 20 staff members in the department of educational administration. Specializations among professors now outstrip specializations in the field. The preparation of professors engaged in manpower development has improved tremendously in the last decade. The continuing growth of these teachers of tomorrow and of today's leaders must be a matter of high priority. The efforts of UCEA and of the National Conference of Professors of Educational Administration (NCPEA) in sponsoring meaningful opportunities for professors to grow professionally and exchange experiences is worthy of special commendation.

Resources allocated to date for the preparation of non-instructional leaders have not approached the amount dedicated to the development of other professional specializations in society. There is a need to begin to assess realistically fiscal, material and human requirements for manpower development in education. At present there is but a big void.

IN CONCLUSION

The leadership of American business throughout the world rests more on the availability and quality of special preparation and opportunities for continuing development of business leaders than it does on other factors. Until the European nations begin to establish leadership training programs in business and industry, American business institutions will continue to hold a competitive edge.

It should be to the everlasting credit of this nation that, during the last 75 years, a need for the special preparation of those assigned to leadership roles in educational institutions has been recognized. Some nations, including Canada and Australia, have also recognized this need. Preparation programs for leadership positions in educational institutions are non-existent in most nations of the world.

The point should be emphasized that, despite all the limitations of existing preparation and certification programs in the United States, they represent the best thinking that is available. We have no place to go to copy and adapt better programs. Improvements must await the creative genius within this nation. This puts any critical analysis in appropriate context.

This paper is not intended to engender a feeling of self-satisfaction or of relaxation until the rest of the world catches up. Systems breakthroughs are needed *now* to reduce the lag between traditional approaches to the preparation of non-instructional educational leadership manpower and the magnitude of problems facing administration. Mere patchwork will not ensure success in the 1980's. Total involvement, continuing professional development, sophisticated strategies, and more massive allocations of resources are key factors in a defensible preparation model to meet the educational leadership needs of the future.

CHAPTER 5

Designing Preparation Programs for the Future:

Utilizing A Systems Approach

Part One

Developing Programs for Teachers

CARL J. LANGE *†

Prevalent themes in current discussions of education inevitably include consideration of the unrest and ferment relating to teaching education. There are many facets to the general issue of educating teachers. Some of the problems most frequently discussed are: (1) the need for new roles for teachers in order to make effective use of advances in educational technology and new insights into learning; (2) inadequacy of present-day teachers for work with disadvantaged students; (3) improper use of newly developed curricula by teachers; (4) the need for effective utilization of behavioral science by the teachers in the instructional process; and (5) a tendency for some professional teacher education courses to be trivial, superficial, or irrelevant.

Tradition-bound education programs and a general resistance to considering really new approaches to teacher education are still prevalent. Nevertheless, there does appear to be a growing interest in change—hopefully, improvement—in approaches to teacher education. The increasing momentum of research on teacher education, focusing on teachers' actions in the classroom and on micro-teaching and other simulation techniques, and a widespread and growing recognition of the need to define new roles for teachers as a result of advances in instructional technology are promising signs of movement. It would be an exaggeration to claim a consensus concerning the directions such movements should take or to expect radical changes to occur widely and immediately. Still, the recent move by the Office of Education to fund programmatic efforts to develop specifications for model teacher education programs represents a major new level of effort and may hold potential for extensive change.[1]

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* *Assistant Director for Planning, The George Washington University, Human Resources Research Office (HumRRO), Alexandria, Virginia.* Formerly, Interim Executive Director, Central Atlantic Regional Educational Laboratory; and Director of Research, HumRRO Division No. 4. Publications include research reports and papers on leadership and social influence processes and on training for leadership.

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[1] Numbers refer to footnote references at end of Part One.

OVERVIEW OF A SYSTEMS APPROACH TO EDUCATION

Taken as a whole, the systems approach to education represents an attempt to break the mold of traditional instructional concepts and to approach instruction from an open, innovative, and product-oriented perspective. In evaluating the status of available knowledge, the systems orientation pays attention to how what is known might be used and to what new knowledge is needed to develop useful products.

TRAINING RESEARCH AND EDUCATION

In 1962, Glaser,[2] Director of the Learning Research and Development Center at the University of Pittsburgh, edited a book, *Training Research and Education,* designed "to provide an account of representative research and thinking that has gone on in the context of training research and to examine the implications for education in general." Preparation of that volume was stimulated by recognition of the relevance, to civilian education, of research and development in problems of military training and the underlying phenomena of learning.

The chapters in the Glaser compilation are organized around a general conception of an instructional system that includes the following components: (1) instructional goals—the system objectives; (2) entering behavior—the system input; (3) instructional procedures—the system operator; (4) performance assessment—the output monitor; and (5) research and development logistics. The first four of these components represent phases of the main flow of the instructional system. The last component is the research and development endeavor from which results feed into all phases of the instructional system. The research and development efforts are oriented toward constructing and/or improving the system and toward producing results that can be put to practical use.

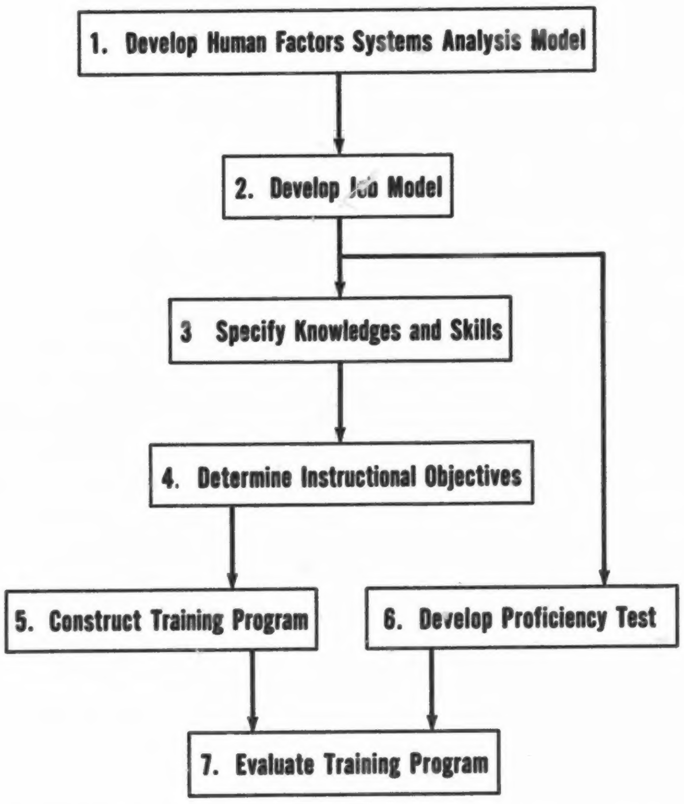
GENERAL STEPS IN THE SYSTEMS APPROACH

A number of quite similar paradigms representing the principal activities required in the development of instructional systems have evolved from research and development on training.[3] Borrowing from one of these paradigms[4] and modifying it slightly produces a sequence of the activities for the purposes of this discussion (See Figure 1).

This formulation of "seven steps" is intended as a very general outline of activities to be undertaken in the process of developing an instructional system. It places considerable emphasis on *making the instruction relevant* to preparing the student for effective performance of a job in a formal organization.[5] The activities to be performed may be characterized by the headings and brief explanations which follow:

Systems Analysis. Since the approach has most frequently been applied in preparing students for performance in complex man-machine systems, the first step is described as a systems analysis performed from

Figure 1: *Principal Activities in the Development of an Instructional System*


1. Develop Human Factors Systems Analysis Model
2. Develop Job Model
3 Specify Knowledges and Skills
4. Determine Instructional Objectives
5. Construct Training Program
6. Develop Proficiency Test
7. Evaluate Training Program

a psychologist's point of view. This analysis involves study of the functions to be performed by each component in the system, *with primary interest in the functions of the human components and their interactions with other components in the system as required to achieve system goals.* The information so derived is the basis for job allocation and specification. In addition to providing information as to knowledges and skills that need to be acquired in formal instruction, the systems analysis also provides information relevant to selection of personnel, and to human engineering of hardware components. Such analysis can be applied to the design of both new and existing systems and organizations. When it is applied to existing organizations, the results may have implications for change in the allocation of functions—for example, breakout of additional job positions and consolidation or even elimination of job positions.

Job Analysis. The second step involves analysis of the specific job to determine major job duties and specific job tasks for each job duty, and to develop detailed task descriptions for each task. A variety of procedures may be used for analysis of the job, and information is ordinarily obtained from a number of sources.

Knowledges and Skills. The knowledge and skill components are specified for each of the tasks in the third step, which is behavioral analytic. It deals with processes that are psychological in nature, such as sensing, discriminating, remembering, deciding, choosing, and responding.

Objectives of Training. The fourth step involves the development and precise statement of the objectives of the instructional program, based on the knowledge and skill specification. Objectives are arranged in a hierarchy with terminal objectives and sequential enabling objectives. *Terminal objectives describe student action at the level of a meaningful unit of performance.* Enabling objectives consist of component actions, knowledges, and skills the student must learn in order to attain the terminal objectives. Criteria for selecting of objectives usually include entering repertoires of students (i.e., their knowledges and skills before beginning the course) and appropriateness of the item to be learned for immediate schooling as compared with later on-the-job training.

Training Program. Selection of subject matter, programming of content, design or selection of media, development of in-course achievement measures, and specification of motivational techniques make up the fifth step.

Proficiency Testing. The sixth step is the development of end-of-training proficiency tests based on the terminal objectives. Tests are designed to measure the student's ability to perform the task according to standards specified in objectives.

Program Evaluation. The seventh, and final step, is the evaluation of the training program, preferably in terms of how well graduates of the course meet proficiency standards and at what instructional cost.

SOME ADVANTAGES OF THIS APPROACH

The significant contribution of such an approach is that *it provides for systematic steps to make instructional systems relevant to the purposes for which they exist, and for the possibility of systematic feedback of information to assure continued relevancy.*

In the application of this seven-step approach, a variety of techniques are used in performing the activities required, and there may be considerable movement back and forth between the main blocks of activities in the process of developing an instructional system. In all of the steps, relevant basic and applied research results are utilized in the development of specific systems. While there is a growing body of workable techniques and methods, there is also continuing need for research on methodology, directed toward creating or improving techniques and procedures for performing the various activities.

Lest the reader be dismayed because this general approach appears to be mechanistic and lacking in "human" values, let me emphasize that such an approach has been applied, with useful results, to the study of such complex "human" aspects of jobs as interpersonal relationships, problem solving, and decision making.[6] The teacher's job is complex, but experience in analysis of similarly complex jobs suggests that the job can be broken down and be usefully analyzed.

APPLICATION TO TEACHER EDUCATION

What are the aspects of teacher education that can most appropriately be served through application of this general systems approach? Smith,[7] in a report on a study supported by the Fund for the Advancement of Education, describes five areas which a group of educators involved in teacher education projects agreed upon as being essential to the process of teacher preparation: (1) a liberal education; (2) specialized knowledge of the subject to be taught; (3) professional knowledge, including understanding of the role of the school and contributions of the behavioral sciences; (4) practice under adequate supervision; and (5) unifying theory. Generally, the systems approach is most applicable to items (2), (3), (4) and possibly (5), the areas most directly involved in the actual process of teaching.

EXPECTED GAINS FROM THE SYSTEMS APPROACH

A number of important gains would accrue from applying the systems approach to the development of teacher education programs. First of all, the relevance of programs would be increased by providing instruction known to be related to critical knowledges and skills. This approach could improve performance of teachers in more traditional educational systems. Even more clearly, *in new instructional systems that require new roles,* such relevance is essential to removing a potent set of obstacles to success.

Further, the more efficient use of learning resources and time in teacher education programs should result in development of greater professional skill and should provide needed time for pursuing liberal education in greater depth. The approach also encourages greater participation of school systems, including teachers, in the design and updating of teacher education programs. Making provision for obtaining evaluative information would provide a basis for quality control of programs to insure that minimum standards, at least, are being maintained. Feedback of information on the performance and experiences of graduates could be used to make modifications needed to meet changing requirements, and to correct deficiencies or excesses in existing programs.

The remainder of this paper is devoted to a discussion of the application of the systems approach to the development of teacher education programs, including some current trends in research on teacher education and effectiveness as reflected in the literature. The discussion will be oriented more toward general points of interest than to detailed technical considerations.

As a general observation, the scope of effort and the types of resources required to broadly apply a systems approach to the development of entire pre-service programs are very substantial. *Such an approach will require coordinated efforts from the research community, schools of education, and public school systems.*

ANALYSIS OF THE TEACHER'S JOB

If the concept of designing instructional systems to meet specified educational objectives is taken seriously—and there is ample evidence that it is—the role of the teacher should be analyzed in terms of such systems.

THE TEACHER'S ROLE IN INSTRUCTIONAL SYSTEMS

Looking to the future, it is conceivable that the concept of "teacher" may be altered, with the development of more definitive positions being required by the operation of instructional systems and by their design and management. Some of these positions may be highly specialized. For example, three major types of jobs are generally seen as needed: (1) the system designer, (2) the system manager, and (3) human components in the instructional system. These several roles vary considerably in terms of the qualifications required.

In educational systems of the future, decisions about job positions should be based on appropriate systems analyses as to how job duties are allocated to the personnel subsystem. One might envision a career progression in education which would involve initial job experience at a lower echelon in the system, return for formal schooling, and progressive movement to higher level jobs in a much more complex fashion than is presently the case for transition from teacher to instructional leader or administrator. To be sure, such change is likely to be evolutionary rather than revolutionary, but *the job of the teacher can no longer be seen as static and unchanging* if improved educational technology, the changing needs of society, and needs of individuals are to have their fullest possible impact.

In the more immediate future, one can expect continuing efforts directed both at improving the teacher in the more traditional classroom role in direct interaction with students, and at developing new roles for teachers in the use of innovations from educational technology. Joyce states that:

> The 1950's and 1960's have been a time when the conception of staffing the schools with only one kind of person (the multipurpose classroom teacher) and only one kind of material (textbooks and trade books) has been replaced with the view of the school as a complex of man-machine systems in which teachers of many kinds work with technicians and lower order personnel of many qualities and in a matrix of technological devices and instructional resource centers.[8]

He further notes that:

> Innovations such as team teaching or programmed instruction often appear in local setting without the development of a full-scale pattern of organization that can enable these changes to be made or studied effectively. When in-

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> troduction of a staff utilization pattern is conceived as the construction of a man-machine system, however, careful analysis of the possible behavior of the machine and people can be made in an effort to find out the actual situation of staff utilization of roles that teachers take on easily and the kind which they resist.

Gage and Unruh describe the revolutionary force of programmed instruction, broadly defined, in education and state that:

> If successful, it will overthrow the hegemony of the centuries-old pattern whereby one teacher and 20 to 40 pupils engage for most kinds of instruction in a teacher-dominated discourse.[9]

Perhaps the most likely prediction for the future is that the teacher will play a greater multiplicity of roles than in the past. The conventional role of the teacher is being studied intensively by those using interaction analysis techniques, which involve observation of the teacher performing in the classroom setting.[10] There appears to be a growing consensus that a critical area for future work is the careful analysis of the tasks to be performed by teachers in systems using such innovations as nongraded classrooms, programmed instruction, closed circuit television instruction (CCTV), and computer-assisted instruction. Analysis is also needed for older innovations such as team teaching. In addition, analyses are needed on those aspects of the teacher's job that are not directly involved in the instructional process—for example, the teacher's roles in staff utilization, broadly defined to include interacting with teacher aides, school psychologists, guidance counselors, health specialists, etc. Also assuming increasing importance is the role of interacting with parents.

DEVELOPMENT OF COMPOSITE JOB MODELS

Since the teacher will need to fulfill a multiplicity of roles, especially to accommodate innovations from education technology, it would seem essential to develop composite job models which, in effect, represent idealized jobs. As Cogan[11] states in a discussion of Systems-Analytic Training Programs, "The system-job model is a translation of the varieties of operational realities, with their vicissitudes, into an idealized symbolic analog."

In developing an idealized job-model, wise decisions need to be made about what is to be included. Subjective judgment needs to be exercised in creating the model. However, to the greatest extent possible, the model should have an empirical base as well as a conceptual framework. Among the sources that are of demonstrated value in creating models are observations of job activities (supplemented by structured interviews, questionnaires, or daily logs kept by job incumbents), research literature relating to studies of job (teacher) effectiveness and to aspects of human performance related to those required on the job, and simulations of systems in which the job is a component.

One important distinction to be made among the sources is between information related to analysis of job incumbents and the information obtained from invention and design of new types of activities. Obviously, in analyzing the activities required in innovative systems, the development of job information requires invention. But since armchair analysis cannot forsee all elements of how a system will function, some empirical tryout is needed. Simulation can be useful for this, but it would be most desirable to conduct tryouts of the new system in an operational setting to get a full appreciation of job performance requirements and their administrative and fiscal implications.

Such a need is recognized by Joyce:

> . . . the first few years of a new utilization pattern should probably be given to engineering research that can result in knowledge of the optimal dynamics of the utilization pattern.[12]

Joyce implies that inventors of new systems must include effort devoted to careful analysis of the human components in the system, and that such analysis should pertain to developing job-descriptive information necessary for training the human components. He also implies that a cooperative effort involving research and development teams, school of education staff, and public education staff is a necessity.

CURRENT RESEARCH EMPHASIS ON TEACHER EFFECTIVENESS

A comprehensive body of research literature on teacher effectiveness exists and is growing rapidly. In the past 10 years, the emphasis in such research has turned from studies relating teacher characteristics to pupil performance and attitudes to studies of teacher and student behaviors in interaction episodes. As Biddle pointed out in 1964:

> We are, in a sense, at the same crossroads faced by leadership in research two decades ago. Prior to 1940, much conflicting evidence had been gathered on traits and 'behaviors' of leaders. About 1940, responsible investigators began to emphasize the contextual necessities of leadership, particularly those demands that were placed upon the leader by the needs of the followers and the organization in which leadership was exerted.[13]

The comparison to leadership research is a provocative one. The recognition of the desirability of studying the leader, the follower, and the situational context was a key element in making leadership research responsive to producing information useful for developing leadership training.

In a program of research by Lange and associates,[14] descriptions of acts by leaders when interacting with followers in job-related situations were obtained, codified according to a set of categories, and related to criteria of effectiveness. The results, together with findings from experimental studies of leadership in small groups and from other social influence literature, provided the basis for development of a model of the functional role of the leader in small groups. A training program was then developed, using simulations of leader-follower interactions and small group discussions to teach perceptual and analytic skills needed to identify important factors in leadership situations, place these in an order of importance, and select an appropriate course of action.

STUDIES OF TEACHER-PUPIL INTERACTION

Several observation systems for conducting objective studies of teacher-pupil interactions have been developed. Flanders'[15] interaction analysis system, one of the best-known examples, includes ten categories in matrix form: (1) clarify feeling constructively; (2) praise or encourage; (3) clarify, develop or make use of ideas suggested by students; (4) ask questions; (5) lecture; (6) give directions; (7) criticize; (8) student talk in response to teacher; (9) student talk initiated by the student; and (10) silence or confusion. This technique for observing teacher behavior, as well as other similar techniques, is being used to study teacher activity in the classroom as it relates to pupil learning and attitudes.

In general, the body of research on observation of classroom activities should provide an increasingly richer store of data concerning teacher effectiveness. However, one can observe that the orientation of most of these studies is that of the scientist interested in understanding the phenomena of the teacher in the classroom. Investigation tends to stop with analysis and interpretation of findings. What appears to be needed are more studies from the approach of technology, with an orientation of synthesis to develop models of the teaching process that can be used to construct educational programs. It is recognized that interaction analysis has been used as a technique for training teachers and has been effective in changing teaching behaviors. However, the present point of emphasis is that studies oriented toward detailed analysis, synthesis, and modeling of the teacher's role are needed to translate educational research results into integrated educational programs. Such efforts should pay particular attention to teacher behavior as it relates to achievement of specific types of objectives by students.

These studies are representative of a movement to study the effects of teacher behavior in the classroom on student performance and attitudes under varying contextual conditions. They are relevant to the more traditional role of the teacher. The general trend of results from these studies appears to emphasize the importance of teacher flexibility—flexibility in being sensitive to needs of the student, to the demands of the subject matter being taught, and to acting in response to the student's needs. For example, the work reported by Flanders[16] suggests that the more effective teachers are characterized by indirect behaviors, that is, behaviors which reflect students' feelings and elicit response from them, and react appropriately with reinforcement (praise) related to students' specific performance. The less effective teachers spend more time giving information (lectures) and are more frequently critical. More recent results suggest a curvilinear relationship with indirect teacher behavior, suggesting that some structuring behavior by the teacher is desirable.[17]

This general trend of results implies that *the teacher needs perceptual analytic skills in appraising student actions and attitudes, as well as skill in questioning, recognizing students' feelings, and giving praise.*

ANTICIPATED CHANGES IN THE ROLE OF THE TEACHER

One of the main trends in educational technology is to develop components of the instructional system that will in part replace the function of the teacher in carrying on the instructional process. For example, programmed instruction and the computer will be used to present information, ask questions, and respond to students' behaviors.[18] The general objectives of such innovations are to individualize instruction to accommodate differential student aptitudes and interests, and to increase student participation in the learning process.

In these circumstances, the role of the teacher will change to an emphasis on diagnosis of pupils' strengths and weaknesses, prescription of instructional tasks, individual assistance to students, and guidance. In addition to these practices, which will place greater demands on teachers, there should be an increased use of small group discussions and of games and simulations, all of which will require interpersonal skills and understanding of social processes.

The requirement for individuals in an increasingly complex society to participate effectively in groups engaged in problem solving, decision making, and negotiating represents a significant need that should be met by education. Providing educational experiences relevant to this need might well represent as significant a trend for the future teacher as the shift to manager of instructional systems. Preparing the description and analysis to create the job activities required to carry out these new roles presents one of the important challenges to educational research and development in the future.

DESIGNING TEACHER EDUCATION PROGRAMS

If teacher education programs are to be relevant for preparing teachers in the knowledges and skills as described and analyzed in job models, considerable emphasis will need to be given to the practice of skills in the curriculum. The instructional objectives derived from the knowledges and skills required for job performance frequently will be stated in terms of skills that are needed. The increased emphasis on skills that would follow from a systems approach to developing programs for teachers is consistent with current interest in micro-teaching, mini-courses, interaction analysis as a teaching tool, and simulation.

However, as stated earlier, the creation of new teacher roles required to accommodate innovations from educational technology will represent additional objectives to be met by teacher education programs. Thus, *an important step in curriculum development of teacher education programs to meet future needs will be the creation of instructional objectives relevant to these new roles.* The creation of such objectives presupposes the formulation of the necessary job model which describes and analyzes the job functions and related knowledges and skills.

SEQUENCING OBJECTIVES

The systems approach which has provided the basis for this discussion of teacher education programs has been utilized in the development of courses of instruction. For purposes of the discussion in this section, a distinction can be made between curriculum development and course development. The word "curriculum" is defined as meaning either a single course or, collectively, all of the courses of study in an educational program.

Traditionally, individual courses are administered under the purview of a single teacher or faculty member who has considerable latitude in shaping the course. A key feature of the utilization of a systems approach to the design of educational programs is the sequencing and integration of specific enabling objectives to achieve efficiently the terminal objectives of the program. To accomplish desirable sequencing and progressive integration, more coordination in establishing specific objectives for individual courses would seem essential. For optimum individualization of instruction and integration of objectives, departure from the course concept to training modules probably would be desirable.

INTEGRATING OBJECTIVES TO EMPHASIZE PRACTICE OF PERFORMANCE

Some general observations can be made concerning sequencing objectives which are consistent with the orientation of making teacher education relevant.

The first is that *practice of performance should be introduced as early as possible in the curriculum and opportunity for practice of performance should be integrated into the curriculum insofar as possible.* Micro-teaching,[19] interaction analysis, and other simulated approaches[20] could be utilized to provide such practice.

A second point is that *concepts from such fields as psychology and sociology should be integrated into the curriculum as they relate to aspects of the teacher's performance.* This notion would not preclude study of such fields under liberal arts as part of general education. It does, however, assume that in professional courses *the translation of general concepts to teacher performance should not be left to the student* but rather should be integrated as appropriate in the job-relevant part of teacher education.

The third point is that in the subject matter part of teacher education, *emphasis should be placed on content that is required for teaching the subject and integrating instructional techniques and practice in the subject matter courses.*

These observations all are directed toward increasing the relevance of teacher education programs by providing maximum opportunity to practice performance required on the job. Performance is broadly defined and includes interpersonal skills, decision making, problem solving, and planning responsibilities. Provision should be made throughout the program for immediate feedback on performance in practice situations.

ADVANTAGES OF INTEGRATING THEORY WITH PRACTICE

Integrating theoretical concepts with the learning of job-related performances should have several beneficial effects. *The tendency to deal with words abstracted from events to the point of bare formalism can be avoided.* Critical factors are less likely to be obscured by being imbedded in a context of high-sounding symbols linked by artificial relationships, with no tie-in to empirical reality.

In practice, *principles must always be applied to specific situations.* The application must involve considering situational variables, including context variables which represent previous interaction experiences of those involved. The awareness and judgmental weighting of such variables influence the selection of a course of action.

It may be relatively easy to formulate, discuss, and reiterate general principles. The difficult part is to apply principles without becoming stereotyped. It is practice in dealing with specific situations that prevents the learning of stereotyped solutions to problem situations.

SYSTEMS-DESIGNED PROGRAMS FOR PROFESSIONAL ENDS

In order to introduce changes in teacher education, it is likely that programs of instruction must be developed to achieve a specific set of objectives derived from analysis of the job. Such "packages" are commonly objected to as being "teacher proof" and as usurping the role of the instructor; also, the emphasis on the practice of job-related performance is frequently perceived as craft oriented—a trend toward mere technician training and away from professional development.[21] These criticisms can be rejected as not applicable if programs of instruction are developed to provide adequate practice of performance in the full range of knowledge and skills required.

Such programs will place greater demands on the instructor to serve as a resource person and to react in a much less structured situation than in the usual classroom lecture approach. *The student along with the instructor will be faced repeatedly with the challenge of applying concepts of education to significant problems of today.* Such a move to practice in applying concepts may produce a less serene atmosphere than detached academic contemplation, but the student's experiences should be more vital and certainly no less professional than detached analysis.

SELECTED EXAMPLES OF RECENT DEVELOPMENTS

At this point a brief look at some examples of recent developments in teacher education and related fields should be useful for providing illustrations of some of the concepts that have been discussed.

MINI-COURSES AND MICRO-TEACHING

The Far West Laboratory for Educational Research and Development has developed a mini-course, "Effective Questioning in a Classroom Discussion".[22] The mini-course is similar to micro-teaching in that both techniques require the teacher to prepare a scaled down lesson, which is videotaped and critiqued. The lesson plan is modified on the basis of the videotape observations and is then retaught, with the second presentation also being taped and critiqued. Success is defined in terms of behavioral change rather than recitation of content. The emphasis is thus on the learning of skills which can be clearly defined and demonstrated, and change is effected through observations of models, practice under non-threatening conditions, and relatively quick behavioral feedback by means of videotape recordings.

The instructional sequences deal with specific types of behaviors, beginning with techniques for increasing student participation (e.g., using "pausing" behavior to provide a discussion atmosphere and time for students to organize complete answers), and proceeding to uses of questions for eliciting more complex responses reflecting higher order thinking. Questioning techniques that involve probing, prompting, and refocusing are learned—and all are directed toward obtaining active and thoughtful participation by students.

Interestingly, during field testing, teachers expressed curiosity about why various behaviors were included in the course and about theories and research evidence related to the course. In response to the expressed interest, a "handbook" was prepared to provide a well-documented, scholarly treatment of research and theory relevant to the course.

This work provides an excellent example of the development of training oriented to the learning of practical skills of great importance in the classroom. The course is based on aspects of job performance and utilizes relevant research and theory from psychology both in its development and in the handbook. It provides for practice with rapid feedback. The handbook reports that preliminary analysis of samples of teaching behavior taped before and after training yielded evidence of dramatic changes.

This course was designed for in-service teaching. Similar uses of micro-teaching preceded the development of this course. *Integration of this type of training in subject matter courses for teachers during pre-service training would seem to be especially valuable in providing practice of the skills and in producing an acute awareness of the knowledge needed to frame questions to elicit higher order responses.*

INTERACTION ANALYSIS

Interaction analysis has been studied as a technique for providing feedback to teachers in training designed to shape verbal teaching behavior. For example, Hough[23] describes a study in which interaction analysis used as an aid in conceptualizing, analyzing, and obtaining feedback to verbal teaching behavior was compared with training which did not use interaction analysis. The training in both courses emphasized practice of patterns of questioning, praising, encouraging, clarifying, giving corrective feedback, and soliciting various types of student responses in simulated micro-teaching episodes. The use of interaction analyses by the student teachers as an aid to conceptualizing desired behavior, and to analyzing their behavior in reference to such conceptualization as they practice, provides a self-reinforcing mechanism. In the study, change in behavior, in the direction of more praise and encouragement of students and more frequent acceptance and clarification of students' ideas, was found to be greater for those who used the interaction analysis technique.

These approaches—micro-teaching, interaction analysis, and mini-courses—all are oriented toward the instructional process in the classroom where there is continuous interaction between the student and the teacher. Generally, the future is likely to feature the teacher interacting with the student in respect to larger "chunks" of activity, as, for example, in Individually Prescribed Instruction where the cycle is diagnosis, prescription, evaluation, and further prescription along with individual assistance to students and guidance.[24] Current emphasis in teacher training toward teacher behavior that elicits participation from the student should make this shift in role more gradual than if it were from the more traditional classroom lecturer role.

LEADERSHIP TRAINING

Some research in the leadership training area would seem relevant to the role of the teacher.[25] This relevance is most likely to be in managing activities of students engaged in individual learning using programmed instruction, computer-assisted instruction, or even self-study with conventional textbooks. Here the similarities between the leader and the teacher lie in the more intermittent interactions (as opposed to continuous interactions) involved in assigning work and reacting to work in process and completed work.

In the program of research on leadership,[26] descriptions of leader actions in certain situations—such as job assigning or planning, job in process and being done well/poorly, job completed and done well/poorly—were collected and content analyzed. These situations are similar to those in which the teacher must manage instructional activities when interacting with students. Some examples of behaviors which characterized effective leaders are: (1) giving information that facilitates performance; (2) clarity of oral communication; (3) rewarding and punishing consistently on the basis of performance; (4) not reacting emotionally to poor performance; (5) checking reasons for failure.

The findings resulted in a formulation of the functional role of the leader. A program of instruction was developed to teach the functional role with the objective of producing actual increases in the leadership skills of students. The course was built around small-group discussions of situations involving realistic leadership problems. The situations were tape recordings of representative problems. A textbook on the functional role provided a meaningful framework of theoretical concepts for studying the leadership problems presented in the practical exercises. Thus, the course integrated theoretical concepts with practice in dealing with social influence processes in learning and performance situations.

Such an approach to development of training programs for teachers in the new roles required by innovations from educational technology—roles that will require greater skill and insight in motivational processes and social influence processes—would appear to be necessary. The study of the teacher's role in this context should emphasize the kinds of information that will be available concerning student performance, and the perceptions and judgments required for analysis and diagnosis, as well as skills in interacting with the student. Thus, it would seem that simulation would need to depict appropriate samples of student activity so that the teacher can get practice in perceptual and analytic skills.

SUBCULTURE SIMULATION

A final example of research that has implications for teacher training comes from research on training for advisors to serve in foreign countries.[27] Traditionally, training programs for advisors have emphasized such desirable components of individual performance as technical knowledge, knowledge of the country, and language skills. Interpersonal capabilities required for effective interaction have not been emphasized. In a current research program, a technique has been developed to simulate, in a live role-playing encounter, psychologically and culturally significant interpersonal aspects of the overseas situation.

The interesting aspect of this work is that American cultural patterns were analyzed in terms of the problems American officials typically encounter overseas, and codified along dimensions according to a modification of a schema by Kluckhohn and Strodbeck.[28] These dimensions were extended to derive contrast-to-American configurations representing mirror images of pertinent aspects of American culture. A series of plausible overseas advisory situations was developed to elicit spontaneous culturally-derived behavior from American trainees. These situations used role-playing auxiliaries who were trained to reflect the contrast-to-American values and assumptions, that is, values and assumptions different from American values and assumptions. The simulation provided an emotionally involving confrontation between the American and the contrast-to-American.

The potential of such an approach to developing simulation situations for training of teachers from one subculture to interact effectively with students from another subculture suggests a fruitful direction for future research and development in teacher training. Note that it involves an insightful analysis of the system in which the individual is working, modeling of selected cultural aspects of the system, and development of training to provide realistic practice with feedback on performance in a supporting situation.

IN SUMMARY

A systems approach to development of training programs has been described, and the utilization of the systems approach in the design of teacher education programs has been discussed. Particular attention was given to the importance of the systems approach in providing training programs that are relevant to the teacher's roles. Long-term and short-term future trends were discussed in reference to work on job models for the teacher. Considerations of curriculum design which provide practice integrated with theory from behavioral science and subject matter content were presented. Examples of research and development on teacher training and related training problems were briefly described to suggest current and future trends and to provide illustrations of some of the concepts noted.

In general, *the utilization of the systems approach in the design of teacher education programs should result in enrichment of the educational experiences of teachers by providing them with frequent opportunity to practice application of knowledge in realistic situations.* Their experiences should be livelier and more meaningful than is the case when practical work is a remote goal in the future. Further, the trend anticipated with educational innovations is toward greater involvement of the teacher in dealing with motivational and social influence processes in more complex interpersonal interactions with students, as required in individualized instruction, games and simulation, small group discussions, and teacher-student planning.

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Part Two

Developing Communications Programs

JERRY DRAKE* AND GEORGE R. ANDERSON**

Everyone loves a winner. The courageous pioneer, throughout history, has been lauded, rewarded, revered and respected. The man-who-knows-and-dares discovers the new continent, finds the vaccine for a dread disease, goes into space to land on the moon. We always have had a great number of leaders in this country and, so we believe, this fearless quality of our people has been a major factor in making our country great. We can cite, as examples of leadership, the names of Thomas Edison, Eli Whitney, Daniel Boone, Alexander Graham Bell, Wilbur and Orville Wright, Luther Burbank, John Dewey, Jonas Salk—all of whom are men who led the way into new procedures in their particular specialties or professions.

But what about the fellows who failed because they had not learned enough or who lived during the wrong period of history? Some of them were leaders, too, but not for long. Who remembers Tom Featherhead's attempt to fly a heavier-than-air machine off Lover's Leap in the year 1892? No one thought of him as a leader after that.

Most educators, we believe, are desirous neither of being considered as impetuous radicals nor as foot-dragging conservatives. Most would prefer to exhibit some leadership in their profession, moving continually to better methodology, keeping an open mind for new concepts, adapting to different social requirements. It is as necessary for educators to continue to learn as it is for any man or woman in any profession.

**Information Supervisor, Mountain States Telephone Company, Denver, Colorado.*

***Sales Manager and State Coordinator for Education, Mountain States Telephone Company, Denver, Colorado.*

As employees of the Telephone Company specifically charged with the interrelations with various agencies of education, we find ourselves much involved with the problems of education. In an educational service presentation held last year, a teacher complained, "You shouldn't be making recommendations for education. That's our job!"

Our communications industry has to walk a very narrow path. We must be well enough aware of education's problems to offer real and earnest help when asked, but, at the same time, to maintain and retain the role of communications consultants. It is with this in mind that we offer suggestions, realizing that it is, after all, the job of educators to weigh our suggestions and to accept or reject them.

One of the educational developments we have watched continuously has been the growing interdependency between man and machine. "Teaching machines" have been with us for quite a while—audio-visual devices, programmed learning texts, amplified telephone units and so on. These machines have been incorporated into many existing school procedures.

Today, however, educators are moving into an era of education that is evolving into something quite different. Education is now combining information and machines in a complex manner. Separation of the two is diminishing; in fact they are fusing. Computers not only store information, they act on it. Teachers are utilizing new tools—actually developing new teaching techniques and discovering different ways of approaching the educational process. The use of television, both one-way and two-way applications, is an immediate example.

For an educator or anyone else to venture into this sometimes confusing, often frightening, electronic educational world calls for the courage of a Daniel Boone, the technical understanding of (who else?) Alexander G. Bell, and a knowledge of education perhaps symbolized by John Dewey. A few educators have jumped into the field with partial knowledge and have come away somewhat sadder, if not wiser. If it is any comfort, industry makes the same mistakes day after day. What we all need is a method to minimize the risk of leadership. This can be accomplished through what is called a systems approach to the problem, if we learn to utilize it intelligently and effectively.

In a paper on Systems Theory, Walt LeBaron gives this simple explanation of systems procedures: "First, state the goals for the resolution of the problem, and, second, organize the means to achieve these goals."

In the educational presentations mentioned earlier, we begin with material that has been gathered, with the help of educators, to enable us to study education as it relates to communications. The central theme of these presentations involves the concept of educational resource sharing. It appears to us that many of the machines used in education could, and should, be centralized and shared by many. We offer the library as an analogy—one collection of books for the use of thousands rather than thousands of individual collections. We envision a centralized computer, accessible to many. We look to a centralized television facility in a community rather than to one for each school. We visualize the establishment of local resource centers, each of which is capable of providing not only a centralized source of machine-related learning materials but also a number of administrative aids as well. In our presentations, we expand the concept of resource sharing to include state, university and special function centers. Regional and national centers, too, are envisioned as a part of tomorrow's educational structure.

As you may surmise, we are interested because we are involved. Electronic communications between these resource centers is a means to attain the goal of resource sharing. Determining exactly what should properly be the dimensions of the communications channels has been our immediate concern since this, too, has concerned the educators. In fact, this concept of resource sharing was not our invention; it came originally from educators.

Applying the systems approach to this concept of resource sharing centers might indicate the need to start "clean"—unencumbered by existing hardware or procedures. An innovator might want to have a computer designed precisely to his programming needs. He might want a special machine language to communicate with that machine. He might want a special communications channel to handle exactly the kind of traffic required for his project. Purists gnash their teeth over such frustrations; realists learn to compromise. We deal with both.

In our presentations, we use what are called "the seven criteria" for communications. These criteria are appropriate for any industry. We find they work as well for one as for another. They are:

Function: What do you want your communications system to do?

Distribution: Where do you want it to go? How many points of entry and retrieval?

Volume: How much traffic will go over the system?

Urgency: How quickly must the message travel?

*Language*s Will it be voiced, punched cards, paper tape or what?

Accuracy: What degree of errors can be tolerated?

Cost: What is the best, most practical way to accomplish an objective for a certain amount of money?

Any educator on the threshold of leadership into a bewildering, baffling world of computing and responding machines, might well consider these same criteria. There is no guarantee that following such a pattern of questions will automatically guarantee success but it does give him an edge—something to eliminate, at least, a part of the dangers. Whether or not the educator recognizes this fact, he has communications problems that are as difficult and as vital—for him and for his colleagues and students—as are our own problems in that area.

These seven criteria provide the basis for any recommendation to use the nationwide telephone industry network. The network—commonly referred to as the Direct Distance Dial network—was initially established to handle only voice communications. Over a hundred years ago, no one anticipated the need for wide-band frequencies capable of carrying the signals required for television and high speed data.

While transmission of the human voice has been the traditional function of our network, today wide-band services are being developed. Bell Telephone Laboratory scientists have made this possible. Today, through the use of what are called DATAPHONE* data sets, machine language can be sent over the telephone network. Tomorrow we visualize sending high-speed data and PICTUREPHONE* over this same improved network.

We are developing many new forms of transmission, including pulse code modulation which sends on-off signals to be converted to the original form by the terminal equipment at the end of the transmission channel, and laser beam transmission which promises that a million telephone conversations can be carried simultaneously, providing a tremendous capability for multipurpose electronic communications as well. The PICTUREPHONE—a form of television—once required over 300 voice grade lines (equivalent) for transmission. Today, that figure has been reduced to 100 for wide-band transmission, and there are indications that it can be reduced even further.

To return to the seven criteria, we measure every communications job to meet the defined need. It becomes the yardstick. The educators' communications needs—connecting the man to the machine—become the criteria for these communications services. They may require a combination of wide-band and voice grade channels. In any event, the educational innovator specifies the needs and the communications system implements those needs.

The communications industry has been a part of the American scene for nearly a century. In the world of tomorrow, we anticipate a continued, ever-increasing reliance of all industries and professions, including education, on electronic communications. We have been leaders in the past—often forcing obsolescence on our own practices and equipment through research and development. We expect to continue to be leaders in our field.

What was yesterday's dream of a systems approach to communications in education has become today's reality. But many educators still need to learn more about how to utilize it effectively—and not only to

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*The terms *Dataphone* and *Picturephone* are registered trademarks of the *Bell Telephone System.*

develop better communications programs, but in other ways. *Undoubtedly communications is the heart of the educational process.*

The leaders in education, we believe, will continue to look to us for technical assistance as the world of tomorrow unfolds. We shall look, in turn, back to them for guidance in the educational job that will eventually involve all of us. After all, the job of education belongs to the educators. We wouldn't have it any other way.

CHAPTER 6

Challenges for the Future

Part One

Some Basic Considerations

FRANK G. JENNINGS*

The challenge of the future to the present is that the future will do our cost accounting with the methods we teach it to use.

THE FUTURISTS AND EDUCATION

One of man's most urgent endeavors is to try to find some clue about what tomorrow will bring. He has used tea leaves, sheep livers, and computers with indifferent results, but he persists in the quest, driven by a hope that grows out of some modest successes in another line of inquiry. There are, after all, certain regularities in the world about him: the round of the seasons; birth, growth and death; the agricultural rhythms; and the causal relationships between activities and their consequences.

Today's systems analyst, race-track tout, and real estate investor all attempt to understand and, if possible, to control the future. Their impulses are identical with the earlier efforts of Babylonian astrologers and medieval necromancers. Their major difference from these distant ancestors is in the hardware they use and the way they use it. Their major similarity is in their desire somehow to improve the quality of human life. Teachers share this desire.

Ever since education became professional, its practitioners have been "future oriented". Simply by deciding what a child should learn and what kind of an adult it might become inevitably forces the teacher to accept the heady notion that he can affect eternity. This leads him to assume or to accept the awesome responsibility of changing the shape of things. He attempts to do this by occasionally assessing his role as teacher and by seeking ever more sophisticated means for improving the quality of his performance. He is, however, constantly disabused by the measurable results of his endeavors, and thus seeks to find someone or some agency with which to share the blame.

**Editor-at-Large, the Saturday Review, and Education Consultant, The New World Foundation, New York City.* Contributor to professional journals, author of several books, and editor and/or contributor for many more.

During the high noon of the Greek miracle, Socrates asserted that society was "the greatest of all sophists". Depending upon how the word "sophist" is defined, he could have meant either the "twister of men's minds" or the "enlarger of man's vision". However, it is certain that he viewed society as the most potent educative force in men's lives. For the Greeks during their greatest period did not distinguish sharply between formal and informal education, and so the school undertook merely one portion of the child's and the citizen's education. It is this view that has persisted with more or less force to the present day. Certainly Thomas Jefferson expressed the belief, shared with the founding fathers, that the whole of the community educates and that the teacher instructs only in certain specific skills and understandings. Thus, formal schooling, whatever the promise or protestation of its practitioners, is concerned with the education of only some part of the minds of some of the citizens. This is true today despite the contemporary world's insistence on such noble aims as "the education of all the people". The very partisans of this view confess in their behavior that no formal system of education can affect the totality of any individual or can even shape his public personality.

From the turn of the century when public education became increasingly a field for professionals, and since public schools have become compulsory and pervasive, many tasks that the school undertook were taken away from, or abdicated by, other institutions including the family and the church. The services that schools sought to provide went far beyond the confines of the classroom. Thus, schools today, whether in the United States, the Soviet Union, or Communist China, attempt to provide not only instruction but the meeting of social, psychological, and even physical needs of the students. In every instance, however, regardless of the structure of the educational or political system, educators everywhere are plagued by ancient doubts and dissatisfactions. They are unable to provide "the right education for every child". They are unable to offer "education for all youth". They are inadequate in attempting to guarantee that every student would leave every school with "certain marketable skills". Most serious of all is their recognized failure to mitigate the corrosive consequences of life in a mass society. For, in spite of vastly increased efforts and quantum leaps in the expenditure of government monies, the plight of the least fortunate in every society does not appear to be responsive to the exclusive ministrations of formal education.

The near future should help us solve some of these tearing social problems, or so we must always believe. There are always assurances or promises that "tomorrow will be better." The only certainty is that it will be different—in degree.

The January 6, 1969 issue of *The New York Times* carried its annual "National Economic Review"—a series of supplements on various aspects of the nation's economic health, some 135 pages of reportage, conjecture, soul-searching and advertising, directed serially to the new federal administration and the business community and containing a chiliastic third section for an indeterminate but general readership entitled "Man's New Vision: The Future is Now." That third section is the most recent (to this writing) addition to that proliferating literature which Richard C. Lonsdale has examined with such grace and precision in part two of the first chapter of this book.

As Lonsdale discovered in his search, here, too, education gets short shrift—an occasional paragraph suggesting that the processes of education will be extended in time and elaborated in function—several oblique suggestions that society as a whole will have become a "learning community", and everywhere in the pages inspirational inferences from the emergent "knowledge industries" to some new social structure to house all teaching and learning. Nowhere is education dealt with as a discrete enterprise.

How can one explain this lack of attention? Today's practicing educator is more highly regarded and far better paid than his recent predecessors. Education, writ large, is at the front of the nation's conscience. A sizable portion of our gross national product is spent for goods and services of educational purport.

Could it be that education has been so constantly before us during the past two decades that its presence is assumed even in the absence of the most modest of documentation? Could it be that the larger public recognizes educators as such old hands in the shaping of futures that it is not considered necessary or even profitable to undertake, as amateurs, the kind of continual professional assessment that educators claim always to be engaged in? Could it be that educators, by virtue of their survival and success in the various swamplands, desert areas, and rain forests of their profession are looked upon as omnicompetents who can adapt to any environment, and therefore need no special attention in a social inventory? It is probable that an explanation can be forged out of all of these queries. It would be an explanation which in effect gives to educators and education a great deal of freedom to "synthesize" futurist data for employment in the continuing present.

To return to *The New York Times* "futurist" supplement: Zbigniew Brzezinski (Columbia University professor of government and director of the Research Institute on Communist Affairs) writes that "what makes America unique in our time is that it is the first society to experience the future." He asserts that we are becoming a "technetronic" society in which electronics *and* technology together shape the polity, inform the culture, and direct the economy.[1]* Elsewhere in the supplement we learn that the inhabitants of this society are "extended men", meaning that their senses are given mechanical, electronic, and optical "multipliers".[2]

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*Numbers refer to footnote references at end of Part One.

We are told again, by Daniel Bell, that we are becoming a "post-industrial"[3] society; that, as Glen T. Seaborg implies, we are entering upon a "post civilization" (a term invented by the economist Kenneth Boulding). Most of the writers are properly optimistic, expatiating on domed Eden-cities, where all wastes and pollutants are cycled back into energy production, where all landscapes and city-scapes are molded to human scale, where no man's satisfaction diminishes any other man's and where the state itself works explicitly for the citizen's benefit.

A few of the writers sustain a darker vision. They instance the population explosion, the imminence of nuclear destruction, the inescapable fact that mankind will increasingly have to learn to live deeper in its own filth, the companion *fact* that certain social values will be degraded, that violence in the cities and within each of us will erupt and corrode our lives, that privacy will be further reduced and that the acids of racism will continue to eat away our social souls.

Rene Dubos (Professor at the Rockefeller University, and head of the Department of Environmental Biomedicine) is the most explicitly pessimistic:

> But it is a certainty that mankind shall experience a rapid degradation of the quality of life if present trends are allowed to continue. We may escape nuclear warfare, widespread poisoning and mass hunger. But unless we act drastically and very soon, we shall not escape the progressive loss of humanness resulting from life in a closed environment which is everyday more crowded, polluted, depleted, and desecrated.[4]

Dubos goes further and characterizes "the present flurry of predictions . . . for the year 2000 (as) a form of social escapism." It is so much more reassuring to keep one's eye on the far horizon. It keeps one's mind off the muck at one's feet.

It is unseemly to extol the virtues of a book to which one contributes, but my colleagues in this volume have displayed the finest qualities of good journeymen. They have kept their tools in order, they have addressed themselves to their several tasks with dignity and good humor, they have accepted the limitations of their assignments, and they have produced instruments that have been or can be tested in the field. Not one of them is a social escapist.

There is a sense among us, not clearly articulated as yet, that education at all levels and in all of its aspects is undergoing increasingly rapid transformations. The universities are being "restructured" in ways more profound than even the most eagerly radical students can conceive. Public school systems are experiencing the early stages of administrative, social and political mutation that will probably result, by the turn of the century, in institutions that are processes rather than places—that have no fixed locations but are rather social service systems which meditate among the other institutions within society to assure that every individual does achieve those educational goals detailed by Melvin M. Tumin in Chapter 1.

Long before the 1970's are ended we will have ceased searching for the chimera of the "knowledge industries" and have developed to a fair degree of efficiency, congeries of interrelated "information-and-assessment" systems that will keep knowledges readily accessible to anyone who can use them, thus liberating human minds to engage in "the continuous creation of capacity" (to use Tumin's most felicitous phrase).

Such a development may not be a sure shield against disaster. Every human being has the capacity to destroy himself or his world. But it should provide some kind of group insurance that will allow us to sustain the experiences of tragedy and joy without irrevocable loss of our personalities.

This would depend upon a basic educational program for every child that would meet Tumin's ten requirements. The adjective "quality" ought to be redundant. An educator, whatever his assignment, should have an informing "vision of a desirable society". He should possess the intellectual and emotional resources to use that vision to move the existing school or class or system toward that vision. That vision must in its largest aspects be widely shared or have the potential for being widely shared by the citizenry if it is to be an effective guide through the perplexities of everyday life.

We do have such a vision. It is stated most explicitly here in Tumin's paper. It is generously implicit in the paper by Carl Rogers (Chapter 3). It informs the writing of all the contributors to this volume. It is the Democratic Vistas of Walt Whitman revisited. It is the humanistic insights of Thomas Jefferson. It is the impulse toward unfettered equality in all matters concerning the quality of individual lives, modulated only by the general good. With respect to this vision, the challenge of the future is for us to make it possible to live into it undiminished, and to so manage our individual and corporate selves that the inhabitants of some farther future will not curse the memory of us.

Educators must face this challenge constantly, for teaching is the most dangerous of professions. Whatever else happens to the child before it comes to the schoolhouse door, what the teachers do to and for the child will largely determine the shape of the nation and the quality of the people's lives.

There are, of course, many other agents and forces that impinge upon our private and public lives more powerfully than the school, but only the school can provide those environments and occasions for human social and intellectual development that will prepare the individual to exploit the options he must confront in daily life.

EDUCATION IN THE CITIES: A CHALLENGE FOR SOCIETY

Public education is undergoing vast structural changes, especially in our great cities. Some of these changes are the direct results of the increasing urbanization which forces every agency within the city to deal with greatly enlarged assignments. Every service—from sanitation to police, to transportation and communication—requires not only an enlargement of resources but a refinement of capacity to identify and to meet the needs of the populace. We can no longer tolerate the topsy-like growth that has characterized the various bureaucracies which direct the service agencies of our great cities. We need to regain the human scale and proportion which we believe was once a primary urban characteristic. Nowhere is this seen more clearly than in the gargantuan public school systems that serve our great cities.

The neighborhood school has almost disappeared, along with the neighborhood it once served. The administration of the schools has receded so far from the purview of family and child that useful discourse is almost impossible to maintain. The great public high schools, with their teaming thousands of adolescents, have become largely depersonalized. Even many of the primary schools have grown so large that little children are lost, as it were, in a human jungle. This is not to say that today's city schools are vastly worse than those of two or three generations ago. But rather that, for the first time in our history, we are so painfully conscious of their general inability to meet the needs of all the children.

The demands for decentralization in the city schools, which are today so heavily freighted with real and putative racial issues, are most clearly an attempt on the part of ill-served citizens to have the school system re-create itself on a human scale. It is a tragic situation in which far too few teachers have been able to join with their fellow citizens in such a demand. This is, in part, because city teachers themselves have come so late to the arena of organized effort, and have so recently gained a modicum of control over their professional lives that they look upon the parents of their children as adversaries, rather than as allies.

The task is yet to be properly defined for the rebuilding of the city school systems. The very notion of *system* itself needs to be explored for alternative social arrangements and effective marshaling of professional resources. The problems inherent in such an exploration are multiplied because our cities themselves are struggling toward redefinition. We are, in effect, forced to live in a slum while we attempt to convert it into a palace.

The problem is compounded, however, by the general fact that teachers and administrators are only daytime residents who usually leave at the very time when their presence could contribute much to the life of the community they serve. The arguments for community control have powerful social validity, for they suggest that the redefinition of community must include as a central agent the re-creation of the school as a keystone to a more generous social edifice. Somehow it must be possible to re-create communities within our central cities, providing not merely decent housing but the actual resources with which people may convert that housing into *homes.*

Somehow it must be possible to re-create every social welfare and service agency within each community within a city so that each such agency will be quickly responsive to individual citizen's needs and mutually supportive with the other agencies of a healthy community life.

The problems within our great cities are such that it is not possible to count on leadership from remote administrations whether at city hall or in the board of education. Somehow arrangements have to be designed to encourage and to nourish local leadership capable of assuming appropriate responsibility for meeting local needs.

Even in the recent past one would have been inclined to say that these problems are beyond the competence or the resources of educators —be they classroom teachers or principals or superintendents. But today, partly as a consequence of the Viet Nam war, partly as a result of anti-poverty activities, partly as a consequence of the Negro revolution, teachers and other educators who are now coming to public schools in increasing numbers are more likely to say that the place to begin social reconstruction is in the school and in the classroom. It is not demeaning to the efforts of teachers, even in the recent past, to say that a new and more effective teacher is now entering the profession. This teacher is not necessarily better educated or better trained (whatever those terms may mean) than his recent predecessors, nor is it necessarily true that his "commitment" (whatever this means) is more profound and more generous. It is rather that many of these teachers appear to possess that "informing vision" of a democratic society of which Melvin Tumin speaks so eloquently in his paper. This vision is a gift which the new teacher, quite unaware, has received from the older teacher, but it is *his* opportunity to attempt to realize it in *his* practice.

This is not to suggest that the new teacher is endowed with any special pedagogical genius, but rather that he possesses to a larger degree a quality of openness to the possibility that he can make a positive and salutary difference in the lives of the children he teaches and in the families whence they come.

If there is, then, a single major challenge for the future, it is for education as a profession to marshal its considerable present intellectual and social resources in order to develop, very rapidly, optimum professional skills in the new teacher and to make available to him most widely the best of our technological and intellectual resources for the effective discharge of his pedagogical tasks.

This is to say that fundamental change in education—both as system and as profession—is going to come about through the agency of the new teacher supported by the "will" of his local community and reinforced by agencies both within the school system and within the community. I suggest too that the teachers themselves, far more than any of their predecessors, will acquire the responsibility, shared with the community, of continually recruiting and preparing new members for the profession.

This development will have a liberating influence on the professional schools and on higher education generally, as suggested by Fawcett and Corbally in Chapter 2. But perhaps even more important, it will encourage even the smallest elementary and secondary schools to be conceived of, and to function, as centers for inquiry, such as Dean Robert J. Schaefer of Columbia University Teachers College described in his recent book.[6] What is being described here is *the school itself as a responsive environment for learning and for human growth.* The more optimistic of our current generation of "futurist" writers envision our developing society not in post-industrial or "technetronic" terms, but rather as a *learning* society. This is not to suggest that there is some abstract or generalized good in learning for the sake of learning, but rather that it should be possible for individuals to express their social and personal lives in an aesthetic of action. This, I take it, is implied in Carl Rogers' paper, though he more courageously uses the word "loving".

Much of the violence we find in our streets, and even on the campuses of great universities, is clearly a response to unmet and uncelebrated needs and desires. To risk a platitude, people have to know themselves as persons. They have to sense without equivocation their own worth. They have to be able to cherish a belief that this worth is inestimable. They have to know that they will always count for something, and that they themselves can always participate in that assessment.

Much of the harsh vocabulary of current protest attempts to make this explicit, even when the words have the shakiest of referents. *Relevance,* for example, is more a cry of anguish than it is a substantive term. It is a demand for connections and for seeing them between what one undergoes and what one comprehends. It is a plea to be taken seriously, especially in the depth of one's own confusion. But most of all, it is a request to participate in the celebration of whatever it is that we call the human adventure. It is the child's "why" question raised unsteadily to philosophical heights. It is a request for freedom for self-definition, to be able to ask "Who am I?" with neither blush nor apology. It is finally the quintessential expression of the urge to be forever learning, to front tomorrow with open eyes and simple wonder, and to be unafraid to be afraid before the perplexities and inexorable finiteness of life.

For that, finally, is the largest challenge that the future will always throw to us: to bring the next generation to the verge of adulthood—knowing the self and the universe well enough to be able to survive the vagaries of events, the disappointments of missed opportunities, and the deliberate or accidental indecencies of his fellows. He must come to know, in Alfred North Whitehead's wonderful phrase, that "outcomes are not assured" in this universe and that *conflict does not necessarily portend disaster,* but is more often an opportunity for creative endeavor; that one's life is one's own to be shared or husbanded as events permit, that there are very few things or conditions to which one must be irrevocably committed, that among these is the everlasting cherishing of others.

This puts an awesome responsibility upon the teacher. Yet it is a responsibility upon which all his other commitments depend. Paul F. Brandwein's comments are quite to the point here:

> Whenever I have had the privilege of observing a great teacher, I have noted the emphasis on 'working', 'doing', 'acting', 'responding', 'investigating', inquiring'. For some teachers a theory of teaching need only inform conscience. These are the teachers who, in Albert Schweitzer's terms, 'have finished with themselves' and are ready to give their lives to the service of others. To them teaching is a moral response; it does not require precise definition. In the act of teaching they become fully alive, their exhaustion giving way to energy ever renewed.[7]

THE UNIVERSITY: MIND OF SOCIETY

Of all of the appellations used to designate the emerging society, *knowledge* is employed most consistently. Daniel Bell, writing in *The New York Times* supplement, referred to above, asserts that:

> . . . the post industrial society is primarily a knowledge society, in which skill and education become paramount. The singular characteristics of the post-industrial society, particularly in the new relation between science and technology, is that innovation and invention become increasingly dependent on the codification of theoretical knowledge (which is rooted in the university). . . . For that reason, in the next fifty years the university—and the other centers of research—will become the primary institutions of society, not in the sense of wielding political power, but as possessing the scarcest and most necessary resources of society.[8]

Elsewhere in the same section Brzezinski predicts that:

> By 1980, not only will approximately two thirds of the United States urban dwellers be college-trained, but it is most certain that systematic elite retraining will be standard in the political system.[9]

The biases and preferences of both men are displayed here with startling clarity, but even more interesting is the "ordinariness" of the observations. This is what is going on now. This is what is happening in the university. Although these are not recent developments (university-government collaboration is more than half a century old), the relationship has tightened measurably in the past decade.

Society is using the university directly and deliberately in planful ways. The federal government has been expanding the roles, and even changing the character of the university indirectly, by supporting such agencies and organizations as the National Institutes of Health, the National Science Foundation, the National Aeronautics and Space Administration, the RAND Corporation and the Hudson Institute.

The "public sector" has responded to the implicit challenge by creating private profit-seeking "think tanks", modeled in part on the governmental agencies and on university-based "centers for advanced study", such as the Western Behavorial Sciences Institute of La Jolla, California, the Center for the Study of Democratic Institutions at Santa Barbara, California, the Illinois Institute of Technology Research Institute of Chicago, and Arthur D. Little Incorporated, of Cambridge, Massachusetts.

The universities have "worked for" both government and industry for many years, in exploration, in basic research, in testing and evaluation. Academics have, for an even longer period, served as consultants and have improved the quality of both planning and decision making in a wide range of fields.

The point can be made that the American university has from its earliest days been continually elaborating and expanding its functions and roles. One may add, too, that in contrast to the usual "Town and Gown" antipathy between college and community, the university has tended to reach out to the community with its cultural, aesthetic and intellectual contributions in the form of museums, music and drama, and adult education.

Thus, today when the university is beset by criticism from students and faculty for too much meddling in the affairs of the community, or not enough, for too close collaboration with the several governments—especially in research areas associated with military requirements—for too much emphasis upon research and not enough upon the teaching function, and also by demands by students—and sometimes by faculty as well—for roles in the governance of the university, the institution is hard put to respond in an orderly and productive manner.

Charles E. Silberman, who is conducting a study for the Carnegie Corporation on "the education of educators", has commented that:

> . . . the American university has been remarkably successful, in several respects. It has been successful in dealing with the problem of numbers, of enormous growth in students and faculty: contrary to the elitist warnings, more has meant better, not worse. The university has been successful, too, in combining three separate and disparate traditions: the English tradition of concern with undergraduate instruction, the German tradition of concern with graduate instruction and research, and the American land-grant tradition of public service. And the university, in a much less noticed development, has been successful in shifting control of undergraduate and graduate education from the hands of lay trustees to the hands of the academic profession—a phenomenon which forms one of the main themes of David Riesman's and Christopher Jencks' enormously perceptive and enlightening study[10] of American colleges and universities.*

In the light of this analysis one can consider the predictions and the fears of some of the university's critics in a useful light by adverting to the predictions of Bell and Brzezinski.

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*Charles E. Silberman: comments to author.

If, as Brzezinski suggests, two thirds of our *fin de siecle* urban population will be college trained, what of the other third? Will they still be clotted in the festering slums, subsisting on paralyzing welfare aid? Will the public schools a third of a century hence still be useless as social ladders for most of the deprived, depressed, and disadvantaged? Will the black people still be hedged in as they are now? This is a dire, if unintended, prediction.

We need better planning than is promised here. Daniel Bell notes that we have as yet no real social planning, "though the needs are great." He states that:

> With the growth of modern communications and transportation, we are most quickly aware of the linked consequences of change and the need to anticipate and plan for them from the community to the national level. The rebuilding of American cities, for example, involves a thirty-five-year cycle. The expansion of medical services involves a minimum of fifteen years' planning. . . . the extension of education beyond the graduate level as a continuing training to keep persons abreast of new knowledge and techniques—all involve a statement of coordinated national goals and long-range forecasting. And this we do not have.[11]

We as a nation can only respond to our need for long-range social forecasting through an expressed commitment to an informing vision of a good society. *We have to want to make the new world better and want this deeply enough to discover the cost of the undertaking.* We must then—as a people—achieve the social courage to meet the cost, not only in money, but also in deferred satisfactions for those who could have them for a price. We have, in short, to make and act upon a declaration of conscience such as Tom Paine made. If there must be troubles, let them come in our time so that our children may live a more gracious life.

This, I believe, is what the most attractive of the young people are prepared to do and are in fact beginning to do in increasing numbers. We must bring under cultivation our steaming inner frontiers—our cities. We know that we have the resources; we know that we have the technology; we know what methods need to be developed to do the work. Our economy can sustain the effort. In fact, it cannot prosper without this undertaking.

And the university must be the armature upon which this work must be built. As Dankwart Rustow (Professor, School of International Affairs, Columbia University) sees the situation,

> . . . we must rethink the university's function in three interrelated contexts: (1) as an institution of learning, including students, teachers, and researchers; (2) as a setting for the development of individuality in an increasingly institutionalized society; (3) as an institution serving the wider urban and national society.[12]

Rustow suggests that the university must reexamine the conventional divisions among branches of knowledge; that some considerable sophistication is needed for establishing effective interdisciplinary undertakings; that a better balance be achieved between the acquisition of substantive knowledge and the fostering of attitudes of inventiveness, imagination and judgment; that teaching must be restored to its central function and that decisions be made about the appropriate sources of "general education." (Should it emerge from a common undergraduate curriculum, or from the pursuit of diverse curricula by way of an apprenticeship system "in a closely knit human and intellectual community?"

It is increasingly asserted that the university must provide to society some services that are at least commensurate with the privileges and immunities it enoys: freedom of expression both within and without the classroom, insulation from gross political interference, and the financial support the university receives from both private and public sources.

Some would argue that these services cannot be particularized, that the indirect benefits accruing to the general public through the "normal" activities of the institution are the best possible arrangement. Others insist that a bill of particulars can be rendered, that the university can be coupled to its surrounding communities and with its larger constituencies in an elaborate feedback loop. This is especially the argument of those who believe that we are becoming a "knowledge society." Seaborg speaks of a "Global Brain"—a planet-wide computer network "which knows all, recalls all, and tells all."

In such a world there would truly be "no hiding place". In such a world the university may well become the last sure bastion of individuality and freedom. In such a world perhaps only the university can provide the social navigational aids and the personality survival techniques by which "technetronic man" can preserve his selfhood.

But those who want the university to perform "socially useful functions" tend to be more specific and more present-oriented. They want the university to become co-extensive with our *paideia*—to move the whole American culture towards what Robert Maynard Hutchins calls a "learning society". In that phrase, of course, Hutchins is harking back to Athens at the summit of the "Greek miracle." In his new book, *The Learning Society,* he notes that those Athenians

> . . . have been the educators of the human race. In Athens education was not a segregated activity, conducted for certain hours, in certain places, at a certain time of life. It (education) was the aim of society. The city educated the man. The Athenian was educated by the culture, by the *paideia*.[13]

This, of course, is a romanticized reading of that time and place. Glorious Athens sat amid its slums too and literacy was not widely practiced even among the freemen. But the ideal expressed is both useful and apt. What we require is an instrumentality that will make our total culture effectively and widely educational.

The university can neither control nor mold the communications media. It cannot assure a generosity of tone and style in our daily lives. It cannot guarantee that our formal political decisions and actions will be guided by ethical considerations and informed by a selfless concern for the common weal. The university cannot assure that the professionals it creates—the engineers, physicians, lawyers, scientists, and educators—will enjoy careers that are primarily guided by social and human values. None of these functions is appropriate to any institution. If any were, that institution would have to be destroyed as a menace to the free world.

The university's proper function has been implicit in its origins. It is the mind and soul of society. It seeks knowledge in order to understand what *is*. It pursues truth in order to know why men and events interact as they do. It deals with chance and change and permanence. It assays what men have called beauty and treasures every time's achievements so that it can measure today and hazard tomorrow's possibilities. The university also attends the housekeeping and maintenance problems of society and provides those essential engineering skills by which the products of "disinterested" inquiry are coupled to the requirements and dreams of social and economic man.

Despite its harsh and often accurate critics, the university is essentially what it has only claimed to be, a community of scholars. The American university, especially in its land-grant aspect, has responded and will continue to respond to the vocational and mass education requirements of a nation that insists upon universal full-ranged education as a reasonable and realizable goal. And this impulse is the cause of its troubles, its anguish, and its glory.

For, as we are closing out the seventh decade of this century, our educational mass has "gone critical." Hutchin's assertion to the contrary, we have *at last* "thought about educating everybody."[14] This is what is at the heart of the student revolts. This is the meaning of the black protest.

It is not a naive faith that somehow some kind of education will be the sovereign instrument to heal the sick and free the hobbled masses. It is not a simple belief that academic survival will lead to social and economic liberation for those who are trapped at the bottom of life. It is rather the conviction that by patient application of concerned effort by well educated and well trained people, the most grievous of our civic ills can be cured. The public school systems can be made to function on a need-specific basis. The communities that they serve will be helped to learn how to assume appropriate and responsible control. The teachers within these schools will have discovered and accepted ways by which to become active as co-members with community residents and in so doing will gain the necessary freedom to create, even in an elementary classroom, "a learning society."

If, as the predictions insist, the university does become more specifically the crucial institution in society, it will of necessity engage in efforts to teach values and valuing. It will provide responsive environments for the exploration of feeling and fantasy, of contemplation and meditation. For our planetary survival does require that we learn how to ask and have the courage to attempt to provide provisional answers to the ancient great questions. Dr. Seaborg insists that ". . . extended man will have to extend his compassion and his morality as well as his physical resources." He has to continually ask, "Who am I? What am I becoming? What is most worth doing and being? What must I cede to the state? How much privacy can I tolerate?"

For the challenge of the future and for the future is what it will always be—*dare we make the future we can dream of?* Can we make the commitments, the sacrifices, the endless effort it will require? Can we learn and grow in skill and courage—and devotion to the cause of man?

The answer is always—"Yes—but!"

Footnote References

[1] *The New York Times*, January 6, 1969, p. 141, col. 1.

[2] *Ibid.*, p. 146, col. 1.

[3] *Ibid.*, p. 142, col. 2.

[4] *Ibid.*, p. 142, col. 5.

[5] *Ibid.*, p. 142, col. 8.

[6] Robert J. Schaefer, *The School as a Center of Inquiry* (New York: Harper & Row Publishers, Inc., 1967).

[7] Paul F. Brandwein, *Notes Towards a General Theory of Teaching* (New York: Harcourt, Brace & World, Inc., 1966), p. 18.

[8] *The New York Times*, January 6, 1969, p. 142, col. 3.

[9] *Ibid.*, p. 147, col. 1.

[10] Christopher Jencks and David Riesman, eds., *The American Academic Revolution* (New York: Doubleday & Company, Inc., 1968).

[11] *The New York Times*, January 6, 1969, p. 142, col. 1.

[12] Dankwart A. Rustow, "The University after Crisis: A Discussion Paper" (Mimeographed, Columbia University, 1968).

[13] Robert M. Hutchins, *The Learning Society* (New York: Frederick A. Praeger, Inc., 1968), pp. 134-35.

[14] *Ibid.*, p. 17.

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Part Two
The Question of Relevancy

SAMUEL GOLDMAN*

As one reads much of the current literature on education (including the preceding chapters in this volume) he must be impressed by the problems and issues which dominate the minds of countless educators and critics. A recurring theme in this literature stresses the inevitability of social change and the need for our educational institutions to change accordingly. Almost unspoken, yet clearly implied, is the notion that schools need to be in closer touch with our emerging society. Subtlely hinted is the fear that the educational system in America today is drifting dangerously close to being among the most irrelevant institutions of our time.

It is important therefore that both lay citizens and educators address themselves promptly to this question of relevancy. Are the schools and higher institutions indeed becoming irrelevant? What are the indicators of this irrelevancy? How do they become relevant?

A good point of departure in seeking an answer to these questions is Frank Jennings' very eloquent definition of relevance in Part One of this chapter. For example, he says:

> Relevance . . . is more a cry of anguish than it is a substantive term. It is a demand for connections and for seeing them between what one undergoes and what one comprehends. It is a plea to be taken seriously, especially in the depth of one's own confusion. But most of all, it is a request to participate in the celebration of whatever it is that we call the human adventure. It is the child's "why" question raised unsteadily to philosophical heights. It is a request for freedom, for self definition, to be able to ask "Who am I?" with neither blush nor apology. It is finally the quintessential expression of the urge to be forever learning to front tomorrow with open eyes and simple wonder, and to be unafraid to be afraid before the perplexities and inexorable finiteness of life.

Relevance then is concerned with the human quest—man in search of self. In education, it is concerned with the connectedness between this quest and the school's efforts in man's behalf.

THE DRIFT TOWARDS IRRELEVANCY

By action, if not by law, the school has emerged as a singularly important element in our society. It is the vehicle for access to the richness of our nation; it breeds the enlightened citizen who is so important to our democratic way of life; it transmits the values, customs and beliefs which lubricate interpersonal relations in our society. But the schools not only *contribute* to our broad scheme of living; they also *receive* from it.

**Professor of Education and Director, Center for Research in Educational Administration, Syracuse University.*

Society allocates the resources necessary for the school's existence; society determines through its reward structure the meaning of the school's success; society is the milieu in which the school's graduates will live.

The integral relationship between school and society then, must be accepted as a "given". What happens to one, perforce influences the other. Thus to understand the school and education one must explore society and vice versa. Let us begin by briefly examining society.

Among the major concepts that best characterize today's American society are industrialization, urbanization and bureaucratization.[1]* Each has its base in the most sophisticated technology ever devised and has as its goal increasing man's capacity to achieve bigger and better things. Schneider points out,

> We are a society aimed at capacities—the last margin of efficiency, the all-out war, the costliest highway system, the largest cities. We see world development almost wholly as a matter of increasing the capacities of organization. The training and skills of individuals are but the atomic addition to that capacity.[2]

Our system is one of scientific management in a most advanced state. The institution has become central. The individual has become subordinated to its prerogatives. Man is forced to accommodate to technology (for example, "man must learn to live with the machine") and rather than being freed by it, he is consumed in it.[3]

Today the schools and other educational institutions are caught in the squeeze between a society racing almost uncontrollably ahead on the wheels of technology and a concern for personal destiny brought on by a young generation that is seeking individuality and self-expression—a young generation disenchanted with the old, searching for a meaningful new. The slowness to accommodate to this young generation is a measure of the schools' drift towards irrelevancy.

Our educational institutions have been very slow to respond to what Adlai Stevenson once called "the revolution of rising expectations." There is little doubt that these institutions have an important role to play in this revolution. The problem however seems to be that they are unable (perhaps unwilling in some cases) to find the link by which they might attach themselves to it.

There is evidence to suggest that schools somehow are not in the mainstream of this revolution. It seems to take a student revolt in Chicago for the system to respond to the desires of students to be involved in planning their own education. It apparently takes a Black Power movement to force schools to respond to the needs of the Negro. It seems to take acts of disobedience and open revolt (characterized in the extreme by the "hippies") to highlight the generation gap which pervades all of society and most certainly the schools. It apparently takes a paralysis of the New York City Public School System to make known the desires of parents in a local community to govern themselves educationally.

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*Numbers refer to footnote references at end of Part Two.

There is widespread disaffection with the schools. People everywhere in this nation feel out of touch with them.

- "Look at me, I am Black and Black is Beautiful," the Negro shouts. And the system does not respond.
- "Care about me . . . help me to make it in this world," cries the Puerto Rican. And the system does not respond.
- "Don't wipe me out, I want to be in this society," pleads the Indian. And the system does not respond.
- And irony of ironies, the white middle class youth—the one person to whom this system is most dedicated—turns his back and says "you're meaningless."

The lack of response has first led to frustration, then to anger and finally to a violence that has caused great disruption in our lives. During this convulsive period the mechanisms of our system have been unmasked, to reveal a school—an educational system— that is not compatible with the real world of today's young people.

The educational system's drift to irrelevancy is most devastatingly measured by its lack of response to the cries of our young people who demand self expression. Indeed the indicators of irrelevancy become most clear when we examine what the schools and other educational institutions do *to,* rather than *for,* our young.

INDICATORS OF IRRELEVANCY

Irrelevancy becomes more pronounced as the schools move farther and farther away from the individual and the realities of today's world. There are several indicators that help us to see that this move is taking place.

UNRESPONSIVE BUREAUCRACY

One of the critical controversies in America today relates to the question: "Who governs the schools?" The controversy is not new. Indeed it continues in the tradition of more than 300 years of searching for a viable form of educational governance that is responsive to individual needs; to community customs, mores and values; to state and federal ambitions and desires; and to the demands for social change which spring from a rapidly emerging post-industrial society. The controversy however is most pressing today because minority groups and the young are forcing its resolution.

A major factor in this controversy has been the development of a bureaucratic structure, characterized in the extreme by a board of education sitting atop a vast complicated hierarchy and a student body sitting at its bottom. Somewhere in between are the professionals and on the periphery (a kind way of saying "left out") are the parents, especially Negro and Puerto Rican parents in the urban areas who are convinced that the schools are managed by some distant hierarchy, dominated by the white community and out of touch with their children.[4] There is evidence which suggests that the structure moves more in accordance with the wishes of the teachers (examine their union contracts) and administrators (look at their holding action) than with the needs of the students (study their feeling of powerlessness).

Decisions handed down through this hierarchy often are irrelevant to the student's perceptions of the real world. But since a bureaucratic structure requires conformity, a student is not permitted to have a world that is different from that of the structure. His personal goals cannot be independent of the bureaucracy's goals. The resultant themes are conformity or alienation, frustration, and breakdown of relations between the student and the school.

There is a great paradox in today's American system of schooling. Conceived to free the learner's spirit of inquiry, the schools are now in danger of becoming so organized as to deny and subvert this spirit. The education structure (bureaucracy and establishment are synonyms) is unresponsive, lacking in positive purpose, spending enormous resources to maintain and justify itself. Bureaucracy has become the cold mistress of educators—controlling, dominating and unyielding. She fosters, as Peter Marin says, "a cultural schizophrenia in which the student is forced to choose between his own relation to reality or the one demanded by the institution."[5] The individual yearning to be free cannot avoid confrontation with her.

FIXATION WITH THE PAST

The literature on "futures" is growing at a rapid rate but, as Lonsdale has pointed out, education futures are not yet gaining prominence in this literature. There may be many good reasons for this but one cannot help but ask: "Have educators become so fixed with the past, that it melds conveniently with the present, and the future is supposed to be its exact replica?" Is education so rooted in what has preceded, that it cannot (or will not) break itself free to incorporate what is before it today and plan seriously for what is to come tomorrow?

Marin answers "yes" and suggests that this fixation with the past has alienated the young from the school. He explains the anger in today's youth as partly a function of their frustration in dealing with our social institutions, including the schools. "The simple problem", says Marin, "is that our institutions are geared to another century, another set of social necessities and cannot change quickly enough to contain, receive or direct them—and as we suppress or refuse them they turn to rage."[6]

The realities of today's world are quite different from those of yesterday and the assumptions about education that once prevailed (and may once have been relevant) no longer pertain.[7] A new set of assumptions still remains to be developed and this fact lies at the heart of the schools' drift towards irrelevancy.

Our children and youth are being educated more in accordance with yesterday's world than in preparation for tomorrow's living. This must be concluded in large part from the obvious lack of long-range planning which addresses itself to the question: "What will our world be like in say, 25 years, and how should we educate our young to live in this world?" Consider that a child entering kindergarten in 1968 will be in high school in 1978, in college in 1982 and out in the working world some time late in the 1980's (assuming that our pattern of schooling remains constant). Too few educators have asked: "What will this person be doing in 1985?" "What will our society be like then?" The truth in the statement that "schools are often run for the satisfaction of teachers and administrators rather than for students" can be seen as a measure of the kind of long-range planning undertaken to educate our children and youth for the future.

THE HOMOGENIZING SYSTEM

A parallel issue to that described above concerns the homogenization of our young. Our educational system is "the central mechanism of role assignment in our society."[8] Dominated as it is by the middle class, the school system transmits middle class values and stimulates middle class aspirations. It serves almost as an homogenizing machine whose operators (educators) seem to be its most illustrious alumni. Indeed, we all applaud the products of this machine in the same way we applaud Henry Higgins who turned an illiterate, poor speaking Liza Doolittle into *his* fair lady.

There is no intent here to belittle the middle class. However, it is important to point out that because of middle class domination of the schools many groups have been "tuned out" largely because their value systems are being denied and looked down upon. The slogan "Black is Beautiful" tells educators that somewhere along the line they have forgotten some people.

An interesting paradox of our time is that the schools seem to be "losing" the middle class youth as well. It is becoming more evident that middle class youth represent significant proportions of the hippies, drug addicts, school dropouts and the like. If middle class youth has "tuned out" the education system, if lower class youth has "tuned out" the education system, if certain races have "tuned out" the education system—just who does "tune in" the education system? Or, stated another way, "Is the education system we now have in tune with anyone?" The answer is more negative than positive. The school has become quite irrelevant to a large segment of our young people.

REPRESSIVE LOCALISM

Among the greatest irrelevancies of our educational system today are the boundary lines which clearly circumscribe certain areas for education. These boundary lines have tended to shelter local school districts from the problems of the "larger community." The resulting localism prevents schools from mounting significant and relevant efforts toward solving problems which are state-wide or national in scope.

It is not difficult to see how this state of affairs came about. Historically, communities developed as a result of spatial organization—that is, geographic location was the primary creator of social systems. These communities dealt with their own problems as though they were unique to them alone. However, our current technologically advanced society gives such spatial demarcation very little meaning. Ease of transportation, communications and the concentration on service-oriented functions have made it both easy and necessary that people cross boundaries and interact on a broad social scale.

Webber suggests that our recent social problems are really not place-type problems, "rather they are the transitional problems of a rapidly developing society, economy and polity whose turf is the nation."[9] This point has profound importance for education. We have been too prone to suggest readily that many of our problems are spatial—that is, they can be isolated and quarantined within a certain region. When many people think of social problems they think of them as being only in the inner city. Yet, as Webber points out,

> Neither crime in the streets, poverty, unemployment, broken families, race riots, drug addiction, mental illness, juvenile delinquency, nor any other commonly noted social pathologies marking the contemporary city can find its causes or its cures there. We cannot hope to invent local treatments for conditions whose origins are not local in character, nor can we expect territorially defined governments to deal effectively with problems whose causes are unrelated to territory or geography . . . In the novel society now emerging—with its sophisticated and rapidly advancing science and technology, its complex social organization, and its internally integrated societal processes—the influence and significance of geographic place are declining rapidly.[10]

Circumstances have changed so much that current school district boundary lines are not only irrelevant, they are inhibitive to imaginative planning, thinking, and innovative designs for education. Yet we cling tenaciously to our boundary lines—irrelevant though they may be. The walls between the school districts speak eloquently not only of the barriers among the districts which prevent schools from pooling precious resources to provide better educational opportunity for the "large community"—but also they tell us that we are viewing education and social problems in an outmoded currently irrelevant spatial manner.

BECOMING RELEVANT

The definition of relevance in education given earlier suggests that the schools become relevant only to the extent they are able to establish a connection between a student's search for self and their own efforts in his behalf. The issues raised in the previous discussion of indicators point at least to two important dimensions necessary for establishing connectedness:

1. The need to provide for expression of self and to enhance the "quality of life";[11] and

2. The need to develop goals and plans that not only are meaningful to the present but also are oriented to the emerging future.

QUALITY OF LIFE

The concept "quality of life" cannot be reduced to a single, rigid definition. It involves the individual's aspirations for self and the meaning he attaches to life. It is realized through developing personal interests and contributing positively to society. It is found in the beauty of our environment and the labor of our hand. It is enriched by good human associations and positive interpersonal relations. And finally, it is maximized by a human, flexible and sympathetic educational system.

Enhancing the "quality of life" must be the most important concern of our schools. The system must be open-ended to allow full development of everyone's total possibilities. Each individual must have a chance to "realize self" and to participate meaningfully in life. To ensure this, educators need to develop relevant goals for education and to plan meaningful ways for their realization.

SETTING GOALS AND PLANNING

Our society is developing an enormous capacity to produce a great array of things in the most efficiently ingeneous ways. However, our preoccupation with capacity has caused us to seek high productivity, often without first asking why we need it. Indeed, it is becoming more and more evident that capacity and efficiency are becoming increasingly irrelevant to man's search for self.

The schools are caught in a similar dilemma. Our system links people to people, process to process, organization to organization, and subject to subject with little or no serious questioning as to why these linkages are, or should be, made. In this age of burgeoning knowledge, advancing technology, newly emerging vocations, demand for self-realization, alienation, despair and violence, there is great need for re-examining what it is we are doing. There is need for setting goals which lend greater meaning to our efforts in behalf of our young.

All of the indicators of irrelevancy described previously owe their genesis to a lack of goals concerning the worth of man. Without goals developed along the lines that Tumin suggests in Chapter 1 which are consistent with enhancing the quality of life, there can be no direction, no ordering of priorities and no guide for establishing the connectedness necessary to being relevant.

Without such goals there can be no meaningful planning, for the latter is a function of the goals set to guide it. Planning needs to "take into account many relationships—between ends and means, present and future, theory and action, general and special (or comprehensive and precise), local and regional (or national), technical and administrative, public and private, pragmatic and ideal."[12] There is need for educational planners who can see these relationships and who are willing to provide bold leadership to give meaning to the idea of relevance in education.

WHITHER THE UNIVERSITY

The university plays a very important role in making our schools relevant. It does so primarily in its capacity as "gatekeeper" for leadership positions in education. Employment practices in school districts throughout the nation call for hiring teachers and administrators with degrees secured from colleges and universities. Further, states require some form of certification based in large measure upon work completed at a college or university. Thus, by virtue of their selection and training processes, institutions of higher education influence and in many ways determine what goes on in the schools.

In previous sections of this book analyses of the university programs have been discussed. These will not be reviewed here. It should be noted however, that whatever the university undertakes for the schools will have meaning in direct proportion to the university's perception of its own relevancy to today's world.

Many of the indicators of irrelevancy discussed previously also apply to the university. Students are expressing disenchantment with what the universities are doing for (and to) them. Columbia University and San Francisco State College offer but two illustrations of the turmoil and upheaval wrought through open confrontation. Universities throughout the nation are now examining the roles they play in today's world.

The major determination the universities will have to make concerns their role as participant or as observer in society. The former calls for direct involvement and intervention to actively improve society. The latter—the traditional role of the university—implies disengagement and neutrality in the interest of objectivity. The forces behind each position are vigorous and determined, and their confrontations are leaving huge scars on the campuses of this nation.

It is clear that each argues from a different set of assumptions. It is not clear just what "goals for society" each is championing. Until these goals are made explicit, the relevancy sought by those involved can never be fully envisioned.

WHO IS RELEVANT?

This paper has examined the question of relevancy in education. Certain indicators of irrelevancy have been described and implications given for making our schools more relevant. But it is action not merely discussion—people not papers—that will make our schools relevant.

The greatest need today is for bold, imaginative, creative leadership. People with an understanding of the present and a vision of the future are desperately needed to guide education in these troubled times. We need people who are unafraid of taking risks and who are willing to attempt the difficult task of keeping our schools in tune with what is real and important for man.

The genius of America is that its people can pretty well accomplish what they set their minds and energies to do. The question is not one of capacity or means but rather it is one of desire and goals. Are educators and others willing to direct goals and means towards meaningfully connecting the schools to the needs, desires and "search for self" of our young? Are they willing to make the schools more relevant?

The answers given to these questions will identify those who are relevant. They will also determine whether our young will be masters of tomorrow's world or victims of it.

Footnote References

[1] Kenneth R. Schneider, *Destiny of Change* (New York: Holt, Rinehart and Winston, Inc., 1968), p. vii.

[2] *Ibid.*, p. 260.

[3] For a discussion see Herbert Marcuse, "The Individual in the Great Society," in Bertram A. Gross, ed., *A Great Society* (New York: Basic Books, Inc., 1966), pp. 58-80.

[4] For a discussion of this topic see Wallace Roberts, "The Battle for Urban Schools," *Saturday Review*, November 16, 1968.

[5] Peter Marin, "The Open Truth and Fiery Vehemence of Youth," *The Center Magazine*, January, 1969, p. 68.

[6] *Ibid.*, p. 64.

[7] For a further discussion see James E. McClellan, *Toward An Effective Critique of American Education* (New York: J. B. Lippincott Co., 1968), pp. 4-8.

[8] Norton E. Long, "Local and Private Initiative in the Great Society," in *A Great Society*, *op. cit.*, p. 85.

[9] Melvin M. Webber, "The Post City Age," *Daedalus*, Fall, 1968, p. 1092.

[10] *Ibid.*, pp. 1093-1094.

[11] Much of the discussion on "quality of life" is adapted from Kenneth R. Schneider, *op. cit.*, pp. 100-103.

[12] Kenneth R. Schneider, *op. cit.*, p. 238.